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ABSTRACT

Essex Community College (ECC) implemented an onsite workplace literacy program for Martin Marietta (MM) employees with the cooperation of United Auto Workers (UAW) Local 738. Assisted by the working committees with representatives from all phases of the project, ECC and MM staff cooperated to develop a recruitment video, brochures, and presentation to encourage employees to be tested. A team of consultants completed literacy task analyses and interviewed workers, supervisors, managers, and directors. The educational objectives outlined reflected MM's manufacturing skill requirements. Skills were organized into class levels that formed the basic curriculum from which instructors targeted workplace needs of employees and collaborated with learners on individualized education plans. The curriculum was customized to the learners' needs through interviews, needs assessments, and course evaluations. Evaluation practices included frequent classroom visits, teacher conferences focusing on staff development in workplace literacy and best practices in adult education, and learner and supervisor surveys. Comprehensive Adult Student Assessment System testing provided a session by session evaluation of instruction. Learners made test gains in 40 hours of instructional time. (Contents include the presentation materials, evaluation reports, and data tables and charts. The final section, amounting to approximately one-half of the report, contains the curriculum with sample lessons.) (YLB)

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ED354395

WORKPLACE SKILLS ENHANCEMENT PROGRAM

DISSEMINATION REPORT

December 1992

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Essex Community College
Martin Marietta
UAW738

CE063136

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WORKPLACE SKILLS ENHANCEMENT PROGRAM

DISSEMINATION REPORT

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(included in this ERIC document)

U.S. DEPARTMENT OF EDUCATION
OFFICE OF VOCATIONAL AND ADULT EDUCATION (OVAE)
DIVISION OF NATIONAL PROGRAM (DNP)

1. PROGRAM TITLE: FY 1991 NATIONAL WORKPLACE LITERACY PROGRAM (CFDA 84.198A)

2. PROJECT TITLE: WORKPLACE SKILLS ENHANCEMENT PROGRAM

3. AWARD NUMBER: V198A10093

4. PROJECT DIRECTOR: GRANTEE/ADDRESS/ TELEPHONE

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5. FUNDS BY: FISCAL YR:
FEDERAL: $278,010
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6. AWARD PERIOD: MARCH 1, 1991-AUGUST 31, 1992

7. FEDERAL: PROJECT OFFICERS
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8. PURPOSE: THE PURPOSE IS TO IMPROVE THROUGH AN ON-SITE PROGRAM THE THE PRODUCTIVITY OF THE WORKFORCE THROUGH INSTRUCTION AND APPLICATION OF LITERACY SKILLS TO THE WORKPLACE. THESE SKILLS INCLUDE READING COMPREHENSION, EXPRESSIVE LANGUAGE IN SPEECH AND WRITING AND COMPUTER LITERACY.

9. PROCEDURES: LITERACY TESTING AND COUNSELING WILL BE OFFERED AND QUALIFIED WORKERS WILL ENROLL VOLUNTARILY IN FOUR LEVELS OF CLASSES IN WORKPLACE LITERACY, PROBLEM SOLVING/PRACTICAL APPLICATIONS AND GED.

10. OUTCOMES: 700 WORKERS WILL BE TESTED; 400 WORKERS WILL ENROLL IN COURSES; 70% WILL COMPLETE A COURSE AND 90% OF COMPLETING STUDENTS WILL MAKE POST TEST GAIN ON THE AVERAGE OF 7 POINTS (INDICATING NEXT GRADE LEVEL). THROUGH PARTICIPATION, WORKERS WILL INCREASE PERFORMANCE ON PROGRAM POST TESTS AND PRODUCTIVITY IN THE WORKPLACE.

11. EDUCATIONAL LEVELS: ELEMENTARY AND SECONDARY

12. TARGET POPULATION: HOURLY EMPLOYEES WHOSE SKILLS ARE BELOW THE GRADE LEVEL THE 8TH GRADE LEVEL AND EMPLOYEES ABOVE THE 8TH GRADE LEVEL WHO DON'T HAVE A HIGH SCHOOL DIPLOMA OR WHOSE PRESENT OR FUTURE JOBS REQUIRE HIGHER LEVEL SKILLS.

13. ESTIMATED NUMBER SERVED: 300 WORKERS AT $2,937 PER PERSON

14. PARTNERS: ESSEX COMMUNITY COLLEGE, MARTIN MARIETTA, UAW 738

PROGRAM OVERVIEW FOR THE WORKPLACE SKILLS ENHANCEMENT PROGRAM

The National Workplace Literacy Program of the United States Department of Education announced in March of 1991, that Essex Community College had won a $278,000 grant for implementing a workplace literacy program at Martin Marietta. A program coordinator, an academic counselor and an administrative secretary were hired immediately. The Essex Community College staff worked with the Martin Marietta staff to begin the detailed preparations for briefing, testing, counseling, and placement of workers in classes, as well as the construction of a comprehensive database of information about the participants.

Assisted by the working committees which consisted of representatives from all phases of the project, the staff helped to develop a recruitment video, brochures, and a presentation to encourage employees to come forward to be tested. With the support of union and company officials, employees were guaranteed confidentiality and academic assistance.

As these activities evolved through April and May, a team of consultants along with the program coordinator spent three intensive days doing literacy task analyses and interviews of workers, supervisors, managers, and directors. Relevant data was to outline a set of educational objectives which reflected the manufacturing skill requirements of Martin Marietta. A compendium of skills was organized into class levels which formed the basic curriculum. From this curriculum, instructors could target workplace needs of employees and collaborate with learners on individualized education plans.

Instructors were hired as soon as possible so that they could order materials and assist in counseling. This pre-semester time was also used to help the instructors become familiar with the environment before the first session began in June. Three instructors were hired to teach along with the program coordinator and the academic counselor. At this point that lesson development actually began and the curriculum became customized to the needs of the actual learners through interviews, needs assessments, and course evaluations. As a faculty, we felt that it was more important to teach people rather than a subject or a skill. By focusing on the needs of the learners, skills and subjects could be taught in a way which was meaningful to the learner. The learner was at the center of the curriculum. Of course learners changed each semester, so program development was on-going. New lessons were written each session; therefore, the curriculum reflects a variety of subjects, skills, and tasks related to the needs of the learners.

While lessons were being written and collected weekly, the working committees met to address logistical issues. With a 50% reduction in the workforce came overtime pressures, which negatively affected enrollment. Because of this an aggressive promotion package was planned for the spring semester which began in January of 1992. In November, the program conducted an "open house" and a cafeteria exhibit.

Ironically, fewer learners in the classroom meant that instructors could spend more time accurately targeting the workplace requirements while concentrating on individualizing the instruction. Frequent classroom evaluation visits by the coordinator and the Essex Community College Project Co-Director contributed to the high quality of the instructional program. From these visits, teacher conferences were conducted focusing primarily on staff development in workplace literacy and best practices in adult education.

Other formative evaluation practices included learner as well as supervisor surveys. By December of 1991, at the end of the second session, the college surveyed learners to find out whether or not they perceived improvements in self-esteem and job performance. According to this survey, learners felt that their educational needs were being addressed and that what they had been learning in the classroom could be directly applied to their work situations.

By February of 1992, the company developed a Supervisor Survey in order to ascertain whether or not participation in the program was making noticeable changes on the job. We found out that supervisors were indeed seeing positive changes on the job. Program improvement through on-going evaluation provided the signals and the directions for the company and the college to make the appropriate adjustments.

Casas testing also provided a session by session evaluation of instruction. If learners were not making gains then instructors had to make adjustments. We were surprised to find learners making test gains in 40 hours of instructional time rather than the recommended 100 hours of instruction. We can account for this by the strength of targeting instructional needs by individualized instruction. By providing as much one-on-one attention as possible, the learner made significant gains in the least amount of time.

An external evaluator spent three intensive days on site in the fourth session. The evaluator in at the end, because it took three full semesters to develop a context specific curriculum as well as train teachers to use non-traditional approaches to adult learners. The evaluator's report is found in the section entitled "Summative Evaluation."

The program coordinator participated in many dissemination activities which included conference presentations and collaboration with other agencies and programs which serve the adult education population of Baltimore. Workshops on "Best Practices in Learner Retention" and "A Manufacturing Model for Workbased Education" were presented at the conference sponsored by the Maryland Association of Adult Community and Continuing Education Association. The program coordinator served as a consultant to the Maryland State Department of Education and provided model lessons for reading, writing, and classroom orientation for the Instructional Framework: A Database of Best Practices for Adult Education and Workplace Literacy education Programs. The academic counselor and the program coordinator were video taped as they demonstrated nontraditional instructional methods. Dissemination activities also included workshops for the Adult Education Division of the College Reading Association, Baltimore County Public Schools Adult Education Department and Literacy Works Professional Development Conference in the fall of 1992.

The final activities of the program included gathering and interpreting hard data from the college database and the company information systems, writing and summarizing all of the significant activities of the partnership over the period of the eighteenth month grant, and of course, saying farewell to the partners and the participants with whom we established a learning community.

I. Establishing and Maintaining the Partnership

Essex Community College and Martin Marietta have enjoyed a longstanding cooperative partnership in which Essex has provided customized training to meet the needs of Martin Marietta workers, while Essex students have enjoyed apprenticeships, scholarships and other opportunities at Martin Marietta. In 1990 when representatives of Martin Marietta approached the Continuing Education Division at Essex Community College about forming classes in basic reading and math, Essex Community College responded by applying for and receiving a grant from the Department of Economic and Employment Development to initiate two adult basic education classes, at the Middle River site. At the same time, Essex Community College applied for additional funding from the National Workplace Literacy Grant to institute a more comprehensive workplace literacy project, which was funded in Spring 1991.

Working Committees

When the project started in Fall 1990, a working committee was formed by Martin Marietta consisting of representatives from Essex Community College, including the Directors of Developmental Education and Continuing Education; Martin Marietta representatives including the Senior Personnel Specialist and the Employee Relations Representative; and representatives from the UAW. The committee met on a weekly basis to address concerns such as absenteeism, schedule conflicts and layoffs, and to direct the program's development. One of its early tasks was to decide on a name for the program, which became the *Workplace Skills Enhancement Program.*

Upon receiving the National Workplace Literacy Program Grant in March of 1991, a second working committee was established at Glen Burnie, the second site, to organize promotional activities and to arrange for our testing and counseling. This committee included Human Resources Development staff, supervisors and directors of production, the program co-directors and the program coordinator. As with the first committee, this committee allowed for dialogue on problem solving, information dissemination, and continuous support of program goals.

The Middle River Working Committee continued to meet on a weekly basis, while the Glen Burnie Working Committee met when there were promotional activities or logistical problems to be solved, or when any specific situations needed to be addressed. Each committee operated exclusively at the appointed site, in order to separate the Glen Burnie facility, a non-Union plant, from Middle River, a Union affiliated operation.

The Advisory Board

The Advisory Board was established in March of 1991 and met every month for the duration of the program to oversee and guide the program's development.

Board members represented the high-level management from each of the partners. From Martin Marietta: the Human Resource Development Directors from both sites, Directors and Managers from Production Operations, Quality Assurance, Employee Relations and the Equal Employment Opportunity, along with the Co-Project Co-Director, who is a Senior Personnel Specialist. The President of the local union or the Shop Steward also attended most board meetings.

From Essex Community College, the Co-Project Director who is the Director of Developmental Education; the Director of Development; the Associate Dean of Instruction and the Program Coordinator of the project attended most of the meetings.

The agendas of the meetings were written through the collaboration of the Essex Community College Program Coordinator and the Martin Marietta Project Co-Director. The program co-director from Martin Marietta chaired all committee meetings.

The goals of these monthly meetings included a review of program statistics, activities, and recommendations on meeting grant requirements. The consistent, if not constant, involvement from each of the partners made problem-solving a matter of foreseeing and forestalling forces which might negatively impact the program. The Advisory Board provided solution guidelines on time and budgetary constraints, impending layoffs, or facility changes.

Informal Meetings/Open Communication

Spur of the moment meetings were frequently called to resolve pressing problems such as communication problems between faculty and students, equipment breakdown or scheduling difficulties. Communication by informal meetings, notes, memos, or telephone helped to solve these problems in a timely and efficient way. Dialogue on the issues helped each partner to understand the other's goals, values, and culture differences.

The Workplace Skills Enhancement Program partners showed determination in putting the goals of the program ahead of any problems or difference of opinion. Teamwork and cooperation were the result of weekly working committee meetings, monthly advisory board meetings, and informal daily relay of information between partners.

WORKPLACE SKILLS ENHANCEMENT PROGRAM ROLES AND RESPONSIBILITIES FOR THE FEDERAL GRANT

Martin Marietta

*provided support personnel
*established and lead all committees
*provided briefing sessions for management
*provided briefing sessions for employees with public relations campaign
*acted as liason for UAW 738
*provided facilities, equipment and release time for employees
*supported Essex with data collection, tracking systems, staff orientation, and coordination of assessment, counseling, and class scheduling

Essex Community College

*provided support personnel
*participated on all committees
*participated in publicity campaigns
*conducted assessments, counseling, and instruction
*developed and implemented curriculum
*maintained records on program status
*developed dissemination report
*maintained budget

UAW Local 738

*provided support personnel
*assisted in publicity campaign at the Middle River site
*participateed in committee activities at Middle River
*Monitored program activities

II. Establishing Relevant Curriculum

Curriculum development was completed in a three- phase process that included visits by consultants to conduct literacy audits, creation of course outlines based on the skills which were identified by the consultants, and a fine-tuning of the lessons based on needs of the learners identified in classes.

Literacy Audits

Consultants were hired to conduct literacy audits of selected positions. Before the three-day intensive site visits from the consultants, the Program Coordinator interviewed the Production Manager and a Personnel Specialist in order to capture a large "snapshot" of the Martin Marietta manufacturing environment. Also, the Program Coordinator received a detailed tour and collected manufacturing process plans, work manuals, and certification course outlines. A summary of the interviews and tour along with the information collected by the program coordinator was sent to the consultants to give them a preview of the manufacturing environment. A site visit was then organized with appointments with workfloor supervisors to allow the consulting team to shadow competent assembly workers. The Assembly/Installer position was chosen by the company for literacy auditing because of its impact on profit and loss in the company's economy.

Following the site visits, the consultants met with the program coordinator and the counselor to review their findings and clarify their guidelines for developing course outlines which best reflected the needs of Martin Marietta. Because the consultants were adult education specialists trained in the CASAS testing system, they were able to match the skills identified with items on the assessment.

Course Outline

Using the seven page, consultant summary of basic math and reading skills required for production workers, the Coordinator and Academic Counselor wrote general course outlines which contained a compendium of skills required for assembles/installers at both Martin Marietta sites.

Class I emphasized word attack skills so necessary in a technological environment where manufacturing process plans may have a readability level of 12th grade or higher. Basic math in the form of measurement was also a requirement in a workplace which demanded accuracy of prescribed weights and sizes.

Class II also taught and reinforced reading comprehension skills and word in context skills, but the emphasis was placed on basic math for measurement. Decimals, fractions and percentages were emphasized in word problems, graphs and charts, because those subjects and media are so frequently found in the workplace.

Class III or the GED Class allowed workers to get their diploma and take college courses or begin a degree program which would assist them in advancing in their career. GED was highly individualized according to the results of the Pretest form "AA". The emphasis in this class had to included writing and test taking skills along with the traditional math and reading skills.

Class IV, called Practical Application/Problem Solving focused on analyzing a workers job and discovering problem solving techniques for communication, stress and time management, and conflict resolution. These higher order thinking/writing skills allowed the worker to explore strategies for improving work habits which impact the supervisors, coworkers, and the production schedule. Workers wrote a Job Book which provided an in depth analysis of their job or became a tool for doing on-the-job training.

Customized Learning

Both the Academic Counselor and the instructors met individually with the learner to determine how workplace needs, CASAS deficits, and educational goals could be directly addressed by the IEP (Individualized Education Program). A needs analysis, a job analysis, and the on-going interview process allowed the instructor to customize a learning plan which was related to both the work context and the career plans of the worker.

The interview process allowed the instructor to develop large and small group activities as well and build a compendium of lessons which reflected the curriculum needs outlined by the consulting team. Lesson plans were turned in weekly and assessed by the coordinator for their level of context related content, multisensory learning techniques, and learner-centered, probelm solving activities

Consultants' Report to the

Workplace Skills Enhancement Program

Spring 1991

MARTIN MARIETTA
WORKPLACE SKILLS ENHANCEMENT PROGRAM

Martin Marietta and Essex Community College jointly developed a workplace education program last year. That model is currently being expanded through an 18 month grant from the U.S. Department of Education. It was our pleasure to meet with Catherine Griffiths, Program Coordinator; Nate Tatum, Senior Personnel Specialist; and Orville Brown, Production Manager, to discuss program development and ways to relate basic skills to job specific tasks within the curriculum. Although the Workplace Skills Enhancement Program will be available to all employees, only the Assembler and Installer position was reviewed at each site.

At Middle River, we would like to thank Eddie Reed, Senior Personnel Specialist, for his input and for arranging for us to speak with an assembler-installer on the floor. Our understanding of the Glen Burnie facility was greatly enhanced by Ed Guseman's informative tour. Again, we are also grateful for input on the floor from Wade Hall, Manufacturing Supervisor, and for his allowing us to spend time with an employee.

MIDDLE RIVER: ASSEMBLER AND INSTALLER

The Middle River plant has three distinct areas of production: Titan, G.E., and V.L.S. Each area utilizes the Assembler and Installer. A review of the job description and our discussions with both Nate Tatum and Ed Reed suggests a degree of commonality, a level of generic skills required of all Assembler-Installers. However, it is important to note that the requirements and level of proficiency for an Assembler-Installer were reported to be very unique for each area of production. There seemed to be a consensus that Titan requires higher skill levels and more extensive training than the other areas. It is our understanding that if an employee can successfully function as a Titan A & I, he most likely can function in the other areas of production if needed. The reverse is not necessarily true.

This has an important implication for the Workplace Skills Enhancement Program (WSEP). First, it is apparent that the Middle River plant has an extensive training and certification program in place. A review/analysis of these training programs would provide an opportunity for the WSEP to identify the basic skills required to be successful in training. In addition, the Titan training might be used as a standard. The goal would be to develop basic skill proficiency to a level that would enable an Assembler-Installer to succeed in Titan A & I training. If an A & I developed the basic skills required for Titan training, it would be assumed by Martin Marietta definition that he would have the skills for G.E. and V.L.S. training.

PMT Meetings

Communication skills: interpret task-related communications
    and implement changes as needed
Note and follow verbal directions
Question appropriately for clarification

As noted, these basic skill competencies were identified following the brief observation of the employee on the floor. A comprehensive Literacy Audit is only possible after observing an employee complete the entire series of tasks. Based on our brief observation and considerable discussion with both Catherine Griffiths and Nate Tatum, we completed the Workplace Literacy Analysis Profile (see attached) to identify a more comprehensive list of skills related to the tasks performed by an Assembler-Installer. This profile should be reviewed by both WSEP and Martin Marietta to correct and update as needed.

A & I OBSERVATION AT GLEN BURNIE

In the Glen Burnie plant, a higher level of work is done than either the G.E. or V.L.S. work completed at Middle River. There are three levels of A & I's at Glen Burnie: the Assembler I, Senior Assembler, and Assembly Specialist. In order to be promoted, not only does the A & I have to have time on the job and excellent ratings, but he must also pass the yearly certifications required in soldering and be able to do the higher level required as one becomes a Specialist. At the level of Specialist, the employee is required to not only read detailed blueprints and related documents, but he must also be able to train new employees coming onto the job. A & I's at Glen Burnie frequently do a job task only once and then go onto a totally new job with different work instructions. Supervisors are required to write reviews, give presentations to their group and others, give presentations to managers on budgets, etc. At Glen Burnie, promoting employees to supervisor is very difficult often due to the level of communication and writing skills required. There are two other job classifications at Glen Burnie: Mechanical and Machinist. The Mechanical workers are those who put things together, torque, use various screw sizes, and work a great deal with blueprints. The Machinist uses a higher degree of mathematics, including trigonometry. The greatest need for the WSEP identified at Glen Burnie would be the A & I's and the Mechanical workers.

Upon observation of an Assembler Specialist, it was noted that this A & I must perform a multi-stepped process as defined by the Work Instructions with close use of the Standard Manufacturing Process (SMP) and documentation of completion on the Flow Card. This process can take an hour to more than a day to complete. Based on our observation of the Assembler Specialist, the following was observed.

Basic skill competencies observed as they relate to job materials:

Resident SMP, Work Instructions and Flow Card

Interpret functional, work-related vocabulary
Identify abbreviations and symbols

Resident SMP, Work Instructions and Flow Card (continued)

- Follow directions
- Referencing skills
- Skim/scan for information
- Compare/contrast in noting engineering changes
- Make decisions in requesting checks and audits
- Computer skills when Work Instructions are placed on computers at each work area
- Organize information at the beginning of each task to make sure that everything needed is included in the Station Planning
- Locate process information or detailed drawings in the SMP or or QWS (Quality Workmanship Manual)

Written Material

- Read and understand the material given during the DOD and MIL 200 solder class and the ESDS Protection training

- Understand how to bar code finished tasks
  - Understand format
  - Record information correctly as to date, time codes

- Tools
  - Scale: grams, reading scales/gauges/dials
  - Torque wrench: reading scales/dials

- Logs/Forms/Flow Card
  - Understand format
  - Locate information: mix ratios, QC comments
  - Record information as completed

- Notice that tools may need to be recalibrated
  - Interpret specific related vocabulary
  - Identify abbreviations
  - Read date/time information
  - Decision making/planning

Mathematics Skills

- Measurement
  - Pound to gram conversions
- Fractions and decimals to determine tolerances

SUMMARY AND RECOMMENDATIONS

CASAS TESTING

The grant-defined class levels based on grade equivalents must be reconciled with the CASAS system. The state of Maryland defines three basic skill levels (A, B, and C) based on CASAS scale scores. The project has defined two basic skill levels. If the standard CASAS levels must be compressed into two, it is recommended that Level 1 equate to CASAS scale scores of less than 215 and Level 2 equate to scale scores of 216-230. Those scoring above 230 who desire a high school diploma would enroll in Level 3: GED. Those who are high school graduates and score above 230 but within the limits of the test could enroll in the Practical Applications class. High school graduates who score above the limits of the test may need to be further evaluated to determine appropriate educational needs which might be serviced within the scope of the grant.

As discussed with Elizabeth Mandlen, the educational counselor, these are recommended guidelines. The employees' overall performance in both reading and math must be evaluated in light of individual goals to insure proper placement in the program.

CURRICULUM DEVELOPMENT

The clear intent of the grant is to develop a curriculum with a high degree of integration of basic skills and job skills. However, this task will be particularly challenging since employees from all areas of the plant will be eligible to participate in the educational programs. This suggests first a need to identify generic basic skills with pertain to job classifications throughout Martin Marietta. Secondly, only individualization within the classroom will meet the unique job specific basic skill needs of each participant.

The site visit provided an opportunity to define a process for identifying both job specific and generic basic skills to be included in a curriculum. Direct employee observations as well as a review of appropriate documentation will continue to reveal specific basic skill competencies. The Workplace Literacy Analysis Profiles can provide additional structure as job related competencies are defined within the overall scope of the CASAS system. These profiles can be completed by supervisors or training specialists to provide data for curriculum development. In addition, the profiles will begin to identify skills common to several areas allowing the curriculum to address both specific and general basic skills as they relate to the job.

Following are initial curriculum recommendations based on our observations at both Middle River and Glen Burnie. These competencies are also cross-referenced to the CASAS system.

Interpret general work-related vocabulary (4.1.6)

GLEN BURNIE:	Work instructions, ESDS Training, Mil Solder Class, ICDR Card, AR Ticket, Flow Card, SMP
MIDDLE RIVER:	Certification Course Materials/Manuals, MPP, Resident MPP
CASAS TEST:	Form 14, Level B - 21, 22

Identify work safety manuals and related publications (4.3.2)

GLEN BURNIE:	Same as above
MIDDLE RIVER:	Same as above
CASAS TESTS:	Form 13, Level B - 19, 20, 21 Form 503, Level C - 20, 21

Identify safe work procedures including safe work attire (4.3.3)

GLEN BURNIE:	ESDS Training
MIDDLE RIVER:	Training - Hazardous Waste Training, HazCom: Right To Know, Mix and Handle Shelf Life Material, Surface Preparation, Caustics and Acids, Safety and Health
CASAS TESTS:	Form 14, Level B - 9, 10, 11 Form 16, Level C - 1, 2 Form 503, Level C - 35, 36, 37

Recognize and use occupational signs, charts, forms, and written directions (4.4.3)

GLEN BURNIE:	Flow Card, Work Instructions
MIDDLE RIVER:	MPP, QC Forms and Logs
CASAS TESTS:	Form 13, Level B - 4, 5, 6 Form 15, Level C - 34, 35, 36 Form 16, Level C - 22, 23, 32, 33 Form 503, Level C - 38, 39

Interpret tasks related to clarifying, giving, or providing feedback to instructions and reacting to criticism (4.4.5)

GLEN BURNIE:	Instruct someone new; provide OJT; understand memos posted on the board

MIDDLE RIVER: Interpret PMT discussions; implement changes discussed in PMT; understand QC instructions

Read or interpret computer generated printouts (4.4.7)

GLEN BURNIE: Work instructions
MIDDLE RIVER: MPP

Convert U.S. Standard and International Metric System of Measurement (6.6.1)

Use measurement instruments (6.6.4)

Interpret scale drawings (6.6.5)

GLEN BURNIE: Scale drawings in work packet
MIDDLE RIVER: Blueprints

Solve measurement problems in stipulated situations (6.6.7)

Use the metric system (1.1.2)

Interpret a graph (1.1.3)

Select, compute, or interpret appropriate standard measurement for length, width, perimeter, area, volume, height, or weight (1.1.4)

Identify safety measures that can prevent accidents and injuries (3.4.2)

GLEN BURNIE: ESDS Training
MIDDLE RIVER: HazCom: Right To Know; Hazardous Waste Training

As noted, these initial recommendations are based on brief job task observation/analysis at each location. The information is presented to illustrate one process for identifying and categorizing basic skills within the context of a job task and should not be interpreted as a complete or comprehensive listing for the purpose of curriculum development.

Another approach to integrating basic skills and job skills is to identify a specific basic skill for process common to several work tasks or job classifications. For example, ***vocabulary development*** could be defined as a generic reading process applicable to a variety of workplace tasks or job classifications. Employees performing a very unique task or utilizing very different material may still need to recognize and define both common and technical terms as well as recognize abbreviations and acronyms. Another example of generic skills might be the ability to *locate information* in a given format. The Resident MPP at Middle River and the Work Instructions at Glen Burnie seem to have a consistent format. The specific information may vary for each individual but the ability to locate information within those documents requires the same skills: recognizing consistent organizational format, skimming/scanning to locate relevant information, cross-referencing with other documents as needed, following sequential directions, etc.

If this more generic or process approach is used to build a curriculum, it is important to very clearly specify the basic skill objectives. Once the objectives are defined, the curriculum must focus on including several examples of work-related material (MPP's or Work Instructions from several areas) to teach the skill within the context of the job task. For more detailed description of this approach see: "Matching Literacy to Job Training: Some Applications From the Military," Journal of Reading, April, 1988.

A final aspect of curriculum development to consider is the evaluation process. The CASAS system will provide one means of pre/post test evaluation. In addition to the Survey Achievement Tests (Levels A, B, and C), CASAS Certification Tests are available to further confirm student readiness to progress to the next level. The program might also consider a pre/post self-assessment process to evaluate behavioral or attitudinal changes. These forms are relatively easy to develop. Another format to consider is a pre/post job task assessment. Specific questions are written to evaluate an employee's performance on a job task. For example, questions could be developed to evaluate an employee's ability to effectively utilize the MPP or Work Instructions both before and after participation in the program.

III. Public Relations and Enrollment Generating Activities

Publicity about the program was achieved through a number of activities inside including a press conference; the creation of a video, brochures and newsletter articles; briefings to the workers; an open house; cafeteria exhibits; and special learner recognition ceremonies.

Press Conference

The company organized a press conference with newspaper and television coverage. The speakers included the company president, the college president, the local union president, the district's representative, and the Program Coordinator. Representatives from the three institutions, united and excited about the "win-win" relationships established by the grant, spoke enthusiastically about the significance of obtaining the grant and the opportunities it would provide for workers. The Workplace Skills Enhancement Program received newspaper coverage in the large and the smaller publications along with a human interest feature on a local television channel.

Publicity Materials

An early activity in the promotion of the program was the making of a video. This video highlighted the three partners, student testimonials and an overview of how to find out more about the Workplace Skills Enhancement Program. The video was used often throughout the year to brief employees and to promote the program. Another tool which was useful in getting information to workers about the program was the brochure. Developed collaboratively by staff from from the college and Martin Marietta, the brochure was distributed at all promotional activities, and mailed, along with a flyer to all workers who had been laid-off. Finally, articles appeared in both the union and company newspapers describing and endorsing the program. All of these activities portrayed the program as a partnership designed to meet the basic educational needs of workers.

Briefings

The most significant activity associated with increasing enrollment were the voluntary briefings held on company time, on-site. In groups of twenty-five, employees listened to a twenty to thirty minute presentation by company management, union officials, and Essex Community College staff. These presentations exemplified the team-approach and promoted the benefits and convenience of attending a company and union supported education program to help workers up-grade their math, writing and reading skills , and becoming "user-friendly" with several kinds of computers. At the end of the briefings, all workers were asked to respond to a short survey indicating whether they would like to be assessed. The response rate from the briefings averaged a 80% positive response to come forward for an assessment and an "education check-up." Confidentiality was stressed by all the partners and supported by a statement about the *Family Education Rights and Privacy Act of 1972.*

Midway through the program, the program coordinator and counselor set up a cafeteria exhibit at both locations, in order to reach workers who may not have attended a briefing or who may not have been interested at the time. Tables were set up displaying promotional materials, as well as texts, and during lunch hours, personnel from the program were able to answer questions about the program. Also, at the tables was information about the "open house" at each site, which were to be held the following week. At the open-house, workers were able to observe first hand the class structure in a festive atmosphere including decorations and refreshments.

Learner Recognition

At the end of every session special ceremonies were held in each class to recognize participant. Certificates were distributed and the company provided refreshments. Twice during the program, special GED ceremonies were held in the evening. At these events, those learners receiving their GED's were individually given framed awards and had their pictures taken. Speakers from the company's upper management, the college's administration, and union gave the ceremonies an air of importance. The events as well as the receptions that followed were enjoyed by the workers and their families.

Without a doubt, the strongest factor generating enrollment was the integrity and the strong reputation of the program which circulated by word-of-mouth in the workplace. Learners re-enrolled and encouraged others to enroll in the classes because the individual needs of the participants were met.

(See sample documents used for enrollment or participation encouragement from the union, company, and college which follow.)

WORKPLACE SKILLS ENHANCEMENT PROGRAM

Presentation to Workers

WORKPLACE SKILLS ENHANCEMENT PROGRAM

WORKPLACE SKILLS ENHANCEMENT PROGRAM

GOALS:

- IMPROVE YOUR MATH SKILLS INCLUDING WHOLE NUMBERS, FRACTIONS, DECIMALS, AND PERCENTAGES
- IMPROVE YOUR ABILITY TO SOLVE PROBLEMS INVOLVING MEASUREMENTS
- IMPROVE YOUR CONFIDENCE AS A LEARNER
- INCREASE YOUR RECOGNITION OF NEW TERMS AND TECHNICAL WORDS YOU MAY FIND IN BLUEPRINTS, SPECIFICATIONS, AND MATERIAL DATA SHEETS

WORKPLACE SKILLS ENHANCEMENT PROGRAM

GOALS:

- IMPROVE YOUR ABILITY TO UNDERSTAND AND REMEMBER WHAT YOU READ
- HELP YOU READ FASTER AND SPELL BETTER
- HELP YOU PREPARE FOR FURTHER EDUCATION
- INCREASE COMPUTER OPERATOR SKILLS

WORKPLACE SKILLS ENHANCEMENT PROGRAM

SIMILAR PROGRAMS:

- B.G. & E.
- U.S.F. & G.
- GENERAL MOTORS
- SOCIAL SECURITY ADMINISTRATION
- MARTIN MATIETTA, AERO & NAVAL SYSTEMS, MIDDLE RIVER

WORKPLACE SKILLS ENHANCEMENT PROGRAM

ROLES AND RESPONSIBILITIES

ESSEX COMMUNITY COLLEGE

- COORDINATION OF PROGRAM
- PROVIDES ASSESSMENT TESTING AND COUNSELING
- PROVIDES INSTRUCTION
- SECURES AND MAINTAINS ALL PARTICIPANT'S CONFIDENTIAL RECORDS

* ALL RECORDS WILL BE STRICTLY CONFIDENTIAL.
ONLY E.C.C. STAFF AND YOU WILL HAVE ACCESS.

WORKPLACE SKILLS ENHANCEMENT PROGRAM

ROLES AND RESPONSIBILITEIS

MARTIN MARIETTA AERO & NAVAL SYSTEMS

- PROMOTE AND SUPPORT PROGRAM
- PROVIDE COMPANY PAID TIME FOR ASSESSMENT, COUNSELING, AND ONE HALF OF SCHEDULED CLASS HOURS
- PROVIDE FACILITIES AND EQUIPMENT ON SITE
- SUPPLY COMPANY DOCUMENTATION AND COURSE MATERIALS FOR CURRICULUM DEVELOPMENT
- CONTINUE SOLICITATION OF FUNDS FROM LOCAL, STATE, AND FEDERAL GOVERNMENTS TO SUPPORT ADDITIONAL PROGRAMS

WORKPLACE SKILLS ENHANCEMENT PROGRAM

HOW THE PROGRAM WORKS

- VOLUNTEER FOR ASSESSMENT AND COUNSELING
- ECC WILL CONDUCT ASSESSMENT AND COUNSELING ON SITE TO IDENTIFY YOUR PERSONAL NEEDS. IF YOU DECIDE ITS FOR YOU, VOLUNTEER FOR CLASSES
- ECC WILL ESTABLISH A CONFIDENTIAL PERSONALIZED INSTRUCTION PROGRAM FOR YOU

WORKPLACE SKILLS ENHANCEMENT PROGRAM

HOW THE PROGRAM WORKS

- CONFIDENTIALITY WILL BE MAINTAINED
- A COMBINATION OF CLASSROOM, SMALL GROUP, ONE-ON-ONE, AND COMPUTER BASED LEARNING WILL BE USED

WORKPLACE SKILLS ENHANCEMENT PROGRAM

BENEFITS TO YOU ! ! !

- YOU WILL FEEL MORE CONFIDENT AND COMFORTABLE IN AN EVER-CHANGING TECHNOLOGICAL WORK ENVIRONMENT.

- YOU WILL BE BETTER ABLE TO MEET TECHNICAL AND DOCUMENT CHANGES.
    - COMPUTERIZED PROCESSES

WORKPLACE SKILLS ENHANCEMENT PROGRAM

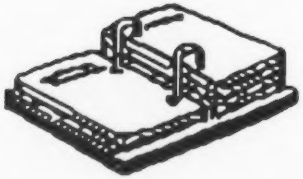
BENEFITS TO YOU ! ! !

- IMPROVE SELF ESTEEM
- IMPROVE OPPORTUNITY FOR ADVANCEMENT IN AND OUT OF WORK
- PRE G.E.D. OR COLLEGE PREPARATION
- IMPROVE SOCIAL AND COMMUNICATION SKILLS

WHAT IS THE WSEP?

The Workplace Skills Enhancement Program is a government subsidized effort of Martin Marietta & Essex Community College to meet the needs of an ever-changing, technological work environment.

In order to assist the workforce in meeting these complex changes, an on-site education and training program has been established to conduct classes in math, reading comprehension, communication, computer operation, and job-related skills.



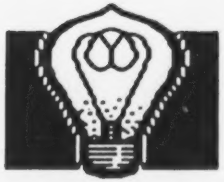
WHEN IS IT?

Classes meet on a Monday/Wednesday and Tuesday/Thursday schedule, between the hours of 2:30 pm and 5:30 pm. Participants will receive two hours a week of paid release time and will contribute two hours of their own personal time to attend class for a total of four hours a week.

A staffed learning lab/library will be available after work or lunch time for additional instruction.

HOW CAN YOU GET STARTED?

You can schedule a private, confidential assessment of your skills with an academic counselor by calling 682-3871. After assessment, you will meet with a counselor to plan an IEP, an individualized education program. You and the counselor will decide on what will best meet your needs and concerns. You will be enrolled in classes which address your program goals.



WORKPLACE
SKILLS
ENHANCEMENT
PROGRAM

FINAL SEMESTER
STARTS APRIL 6TH
ENROLL NOW!

CLASSES ARE NOW FORMING ON SITE FOR:

-Problem Solving in the Workplace

-Workplace Math/Reading Techniques

-G.E.D.

-Introduction to Computers

-Learning Lab

***Decimals, Fractions, Percents**

***Algebra & Geometry**

***Techniques for Improving Spelling**

***Business Writing**

***Additional materials are available on WordPerfect 5.1, Professional Write, DOS, and Spreadsheets**

***Technical Vocabulary**

Sign-up will be on site from March 13th to March 18th in the WSEP Training Room in Building 3:

11 a.m. to 2 p.m. on the 13th
11 a.m. to 1 p.m. on the 16th - 18th

ANNOUNCEMENT OF WSEP CLASSES
LAST SESSION APRIL 6TH

Classes are now forming on site for

- *Problem Solving in the Workplace*
- *Workplace Math/Reading Techniques*
- *G.E.D.*
- *Introduction to Computers*
- *Learning Lab*
    - *Decimals, Fractions, Percents*
    - *Algebra & Geometry*
    - *Techniques for Improving Spelling*
    - *Business Writing*
    - *Additional materials are available on WordPerfect 5.1, Professional Write, DOS, and Spreadsheets*
    - *Keyboard Skills and Practice*
    - *Technical Vocabulary*

A brochure for the program will be enclosed in your paycheck this week. Call the WSEP office for the confidential assessment and counseling.

Sign-up will be on site from March 13th to March 18th in the WSEP Training Room in Building 3:

11A.M. TO 2 P.M. ON THE 13TH
11 A.M. TO 1 P.M. ON THE 16TH-18TH

WSEP JOURNAL - Middle River Edition

Volume II--1992

WSEP Expanding Computer Training

by E. Mandlen

Do you feel that the high tech "Computer Age" is racing past you like the Metro liner? Would you like to get on board, but so far you haven't found the time or had the opportunity? If your answer is yes to these questions, consider exploring the world of computers in the Computer Lab on C Balcony in the PTT training area at Middle River.

The Computer Labs originated as part of the Workplace Skills Enhancement Program. The labs are equipped with three macintosh and four IBM computers plus a printer for each system.

At Middle River the IBM computers in the lab joined a Network to gain some excellent software packages. In our library, Quatro Pro, WordPerfect, and Harvard Graphics are available now with built in tutorials to help employees learn how to use the software. The Glen Burnie lab has recently added Typing Tutor and Word Procesing (Professional Write) to its software. If you use a computer on the job; if you deal with a large amount of variable data; or, if you need to create presentations, you might want to investigate these new options.

Instructional videos in addition to staff and software will supplement your learning about computers in the lab. The resources are here, take advantage of them. Join the "Computer Age" now!

For information about Computer Training call the Workplace Skills Enhancement office on C Balcony in Middle River. The number is (410) 682-3871.

If You Were Layed-Off Today, What are the First 5-10 Steps You Would Take?

Tips according to Marla Jones' Class:

1. Collect ALBS (Allocated Layoff Benefit Supplement).
2. Apply for unemployment compensation.
3. Make dr's appointments for family (before health benefits are terminated/delayed).
4. Job hunt.
5. Talk with creditors and make arrangements for lower monthly payments if necessary.
6. Apply for social service benefits if necessary (note: you may be eligible for solely medical benefits).
7. Have fun!

From The Director's Corner

by D. McKusick

A number of students in the WSEP have now prepared themselves to enter Essex Community College by completing courses in the program, taking the placement tests for the college, and receiving advising about their academic programs. When I am speaking to students who would like to enter Essex, I frequently get the same question: "How do I know what program to enter." I inevitably end up telling them about my own background. I began college wanting to be a social worker, but I changed my mind a year later and chose to study English and journalism. When I graduated from college, I became employed as assistant to a professor at a college. Through this job, I became interested in the field of education, and I decided to get an advanced degree in Reading. I became employed at Essex initially as a Reading Professor, but my current job enables me to do all the things I love - working with the English language, teaching, and most of all, helping other people!

Statistics show that almost fifty percent of the students entering Essex are undecided about what to study. Is this a problem? No, in fact some would look at it as an advantage. Students who are not yet committed to a major can explore their own strengths, weaknesses and interests by selecting courses from different fields. Of course this should be done with the help of an advisor so that all courses will count towards a degree. Remember also that your formal coursework is only part of your education. Your life experience and job experiences will add insight, as you take your courses, helping you get a clearer vision of your academic future.

If you are interested in college, or you know of others at Martin's who may be, please come to the WSEP office to have a chat with Catherine Griffiths about how to get started, including information about advisement, financial aide and placement tests. We'd love to have you at Essex!

Classes Improve Self-Esteem

by C. Griffiths

Forty-two students from WSEP responded to a self-assessment inventory which was distributed in December of 1991.

The following results prove that WSEP participants feel that there are professional as well as personal benefits from participating in the program.

Self-esteem improved:
Definitely - 23 (55%)
Somewhat - 19 (45%)

Improved ability in the use of computers:
Definitely - 10 (24%)
Somewhat - 30 (71%)

Student Response
by E. Mandlen

Question: If you were contacted by beings from outer space who wanted to live on earth, what is the most important advice you could give them to help them survive here?

Responses: First of all, I myself do not believe in outer space beings. But, if there were outer space beings, I would tell them that the best thing for them to do is to stay home or to find some place else to live. This would be the most important advice I could give the, because as far as surviving here on this earth today they can forget it. Mankind is barely surviving here.

by Linda

If I were contacted by beings I would tell them that they have to go to school to learn how to speak, read, and write. So that, when they graduate from high school, they can get jobs and live comfortably on earth.

by Michael

The beings from outer space wanted to live on earth. First, they wondered if it would be easy or hard to survive here. It would depend on what the earth is like. Is life more expensive on earth? Is there inflation? Are the jails overcrowded? Are the people using drugs? Are they killing one another and are the hospitals full? The Lord would be the best help for survival on this earth where there is a one way ticket back to heaven.

by Cynthia

If I were contacted by beings from outer space who wanted to live on earth, I guess the only advice that I would give them is to live, try to deal with the enemy and the crazy, wild world, and to hang with good people.

by Barbara

If I were approached by beings from outer space who wanted to live on this earth, the first thing I would say is, "How do you speak?" If I didn't get an answer, I would point my finger in the direction from which they came and try to say, "Go home. You cannot survive here." If they still wanted to stay, I would tell them, "You must be a U.S. citizen for at least one year or more in order to be accepted here. You must have a good education in order to get a good job to survive here on earth.

by Joe

WORKPLACE SKILLS ENHANCEMENT PROGRAM

G.E.D. GRADUATION CEREMONY

Reception 6:00-6:30 p.m. - "E" building lobby
hors d'oeuvres

CERTIFICATE CEREMONY

Welcome	*Nate Tatum*
Introduction of Speakers	*Catherine Griffiths*

**Essex Community College*	D. Slowinski
**Martin Marietta*	J. McAtee
**Local UAW 738*	D. Reed
**Advisory Board Representative*	D. Ehrlich

Presentation of Certificates	*Nate Tatum* *Catherine Griffiths*
Class Speaker	*Lee*
Closing Remarks	*Donna McKusick*

WORKPLACE SKILLS ENHANCEMENT PROGRAM

RETENTION PROCEDURES

The grant stipulates that we should have a 70% retention rate for enrollment. So that means that we need to follow-up on absences and attendance.

The following procedures should be followed if a student is absence 2 or more times in a row or if a student has missed 4 classes.

-On the absentee form write the required information.

-Our office will call the student and inquire as to his/her return to class.

ABSENTEE FOLLOW-UP

Name of Student
Date
Dept. #
Phone Number
Class Instructor
Dates Absent

- -

ABSENTEE SLIP

NAME: ______________________________

DATE: ______________________________

DEPT. #/BADGE #: ______________________________

CLASS: ______________________________

DAYS ABSENT: ______________________________

REASON: ______________________________

IV. PROGRAM ADMINISTRATION: ASSESSMENT, PLACEMENT, COUNSELING

Program administration included briefing, testing, counseling, class placement, follow-up counseling, pre-testing and post-testing, and exit counseling. These essential tasks provided the foundation for the delivery of educational services to the participants in the Workplace Skills Enhancement Program.

Of all the administrative duties, counseling stands out as both the most time-consuming but the most essential to learner progress and retention. Counseling provided an information channel from learner to instructor through the counselor or the coordinator. Our adult learners responded to personal attention by staying motivated to reenroll.

Budget administration focused mainly on purchasing high-quality, adult education materials, and this included the effort of the entire staff. Videos, software, workbooks, workplace-related materials were purchased to provided a wide selection of instructional materials from which instructors and learners could choose.

Other administrative duties included advisory board meetings, working committee meetings, site visits, class attendance checks, and problem solving when learners phoned the office with difficulties or complaints.

TESTING/ASSESSMENT AND COUNSELING/PLACEMENT

To establish class enrollment the Workplace Skills Enhancement Program began assessment testing in May at both the Glen Burnie and Middle River plants. The roster of persons to be tested was drawn up from employees who indicated an interest in classes, students from the previous classes and any person who requested testing.

Initial Assessment To Begin The Program

Scheduling the Test

The process for scheduling the assessment tests was decided by the Working Committee at each site. At Glen Burnie the secretary in Human Resources notified the employees and their supervisors of the testing day, date, and time. Groups of ten were scheduled three times a day for a week from 8 -10 a.m., 10: 30 - 12:30 p.m., and 1:30 - 3:30 p.m.. A total of 192 employees were tested initially at Glen Burnie.

At Middle River the WSEP secretary notified employees and their supervisors about the test appointment. Groups of 15 were scheduled morning and afternoon. A total of 92 employees were tested initially at Middle River.

The Assessment Tests

The CASAS Workplace Appraisal, Form 200 was used to measure reading skills, and Form 75 was used to measure math skills.

Administering the Test

The WSEP Program Coordinator and the Academic Support Counselor shared the responsibility for administering the assessment tests. The administrator briefly conversed with the group and asked the workers to fill out forms necessary for counseling, follow up, and WSEP record keeping: the Student Data Sheet, Name, Address, and Education sections on the Individualized Education Plan, and information on the answer sheets. After the employees finished filling out the forms, the administrator briefly discussed the test procedures, test taking skills, and test directions. The Reading and Math tests were given in the same session. No time limit was set for either test, but the maximum time allotted for both tests was 2 hours.

Scoring the Test

The Academic Support Counselor made a transparent overlay answer sheet for quick and easy scoring. Incorrect answers were circled on the accompanying itemized sheets for reading and math and not on the answer sheet itself. This method

Scoring the Test (continued)

eliminated the need to move the overlay to mark incorrect answers on the answer sheet .

Placement

The Academic Support Counselor analyzed all the test scores before the counseling began and loosely defined classes. To analyze the scores for class determination the counselor listed all the scale test scores for reading and math from the lowest to highest. Those scores which fell between 200 - 220 were grouped as Class I (grades 0 - 4), and those scores which fell between 220 - 230 were grouped as Class II (grades 5 - 8). Scores above 230 where no high school diploma was indicated were grouped in Class III (GED), and scores above 230 where a high school diploma was indicated were grouped as Class IV (Problem Solving in the Workplace). When there was a discrepancy between the math and reading scores, employees were usually placed according to their reading score. In the actual counseling interview the following factors were considered before finalizing the class placement: educational background, educational goals, clustering of incorrect answers (especially in math) on the itemized appraisal sheets, and other variables which became apparent in the interview process.

Initial Counseling

For the initial counseling and placement, employees were scheduled for a appointments in June, 1991. Each interview was limited to 15 minutes. At the beginning of the interview the counselor explained the employee's test scores using the itemized sheets and the math worksheets. Subsequently the counselor asked the employee to describe job skills and duties, learning strengths and areas which needed improvement. Finally educational goals and placement were discussed. Once this information was completed on the Individualized Education Plan form, the counselor signed it and gave it to the employee to read and sign. A copy of the IEP was given to the employee. Because of the large number of employees to be counseled at both sites, the program coordinator and teachers in addition to the academic support counselor were enlisted to facilitate the counseling.

Assessment and Counseling During the Semesters

After the program was started, ongoing testing was held the first Friday of the month. The tests were scored as soon as an employee finished, and the employee was counseled before returning to the work site.

Practical Application of Assessment and Counseling In the Classroom

In the first and second semesters instructors received a packet with information concerning each learner in their class. For each learner the packet contained the level and form of the CASAS Pre test , a copy of their Individualized Education Plan, and a Class Profile compiled from the itemized appraisal sheets for the Assessment tests.

By the third and fourth semesters the need for these packets diminished, because many of the learners were continuing from the previous semesters. Information packets were provided for new entrants into the program.

Pre And Post Testing To Track Student Progress

Classes I and II

Each instructor administered and scored the CASAS pre and post tests for classes I and II. In the first semester basic skills students were given CASAS reading and math tests to establish a pre test score, and at the end of the 12 weeks they were given a CASAS reading and math post test. Even though the CASAS was administered after only 42 - 46 hours of instruction, the scores of many students demonstrated some progress progress. Both the pre and post testing took two classes periods each, one class period for reading and one class period for math.

In subsequent semesters the post test scores for those learners continuing in the program became the pre test scores for the next semester. In other words continuing learners were CASAS tested once at the end of the semester. Therefore, participants who attended all four semesters were tested after every 42 - 46 hours. We felt that it was important to test at each semester, so that we would not lose data on progress due to layoff or the decision not to continue in the program.

If an employee entered the program in the second semester, the employee would be pre tested during the second and third classes then post tested in the tenth and eleventh classes. If that employee continued into the third semester, the post test scores would become Pre test scores for the new semester. The participant would be CASAS tested only once at the end of the semester.

CLASSES III AND IV

The GED practice tests were used for assessment in the Class III. In Class IV Problem-Solving, instructors designed an individualized education program for each person. For Class IV, for pre-assessment, instructors used a Needs Assessment and Interview form to determine instructional requirements. For post-assessment, instructors designed teacher- made tests and portfolio evaluation to gauge learner progress.

Ongoing Counseling

Interim Counseling

At the mid-point in the first semester, the Academic Support Counselor scheduled appointments with the participants. The In-progress interview allowed the counselor and the learner to evaluate the progress of the IEP and make any necessary modifications.

During the following semesters due to production time constraints, it was determined that interim interviews should be done only with participants who requested counseling, with participants who missed more than four classes, or with participants who desired to withdraw from the program before the end of the semester. To minimize the time the worker spent away from the work site, some interviews were conducted via the telephone and documented by filling out an Interim-Exit Report.

Contact with the counselor, instructor, or coordinator was a motivating factor in participants staying in or returning to the program. This procedure accounted for the program's high retention rate by providing a means of support and encouragement to learners.

Exit Counseling

Faculty had to inform the counselor or coordinator of absenteeism. If the participant stopped attending classes without formally withdrawing, the counselor contacted the student to find out why. The reasons were documented on the Interim-Exit Report. At the end of the semester if any participants said that they were not continuing in the next semester, the individuals' instructor reported the reasons on the Interim-Exit form. Communication between coordinator, counselor, and faculty was a vital key to success in enrollment, registration, and retention.

Name (Last, First, Middle)

Current position

Date / /

Address

Phone Number

S. S. Number

WORKPLACE SKILLS ENHANCEMENT

INDIVIDUALIZED EDUCATION PLAN

TEST SCORES

Date	*Form*	*Raw Score*	*%ile*	*Placement*

ABLE

OTHER SCORES

EDUCATIONAL BACKGROUND

1-6:

7-12:

Other:

WORK HISTORY

Job Title	*Date*	*Duties/Skills*

SELF-ASSESSMENT

STRENGTHS

AREAS WHICH NEED IMPROVEMENT

EDUCATIONAL GOALS

LONG TERM

SHORT TERM

IMMEDIATE STEPS

I understand that the information contained on this form is strictly confidential and available only to the employee and to Essex Community College personnel.

Employee's Signature

Counselor's Signature

WORKPLACE SKILLS ENHANCEMENT PROGRAM
IEP INTERIM AND EXIT REPORT

BADGE # ______
DEPT. # ______
EXT. # ______
SUPERVISOR ______

Name ______

SIX WEEK INTERIM DATE ______

IEP EVALUATION

IEP MODIFICATION

EMPLOYEE'S SIGNATURE ______ COUNSELOR'S SIGNATURE ______

WITHDRAWAL FROM CLASS DATE ______

SONS FOR WITHDRAWAL

RESOLUTION

EMPLOYEE'S SIGNATURE ______ COUNSELOR'S SIGNATURE ______

TWELVE WEEK EXIT INTERVIEW DATE ______

IEP EVALUATION

EDUCATIONAL GOALS

IMMEDIATE STEPS

EMPLOYEE'S SIGNATURE ______ COUNSELOR'S SIGNATURE ______

The information contained on this form is strictly confidential and available only to the employee and to Essex Community College.

WORKPLACE SKILLS ENHANCEMENT PROGRAM

ABSENTEE POLICY

DIRECTIONS: Read the following items and ask questions freely. After you read this list, please sign it and return it to the instructor.

1. Learning occurs through exposure to a topic over a long period of time. It is important to understand why an absentee policy is necessary. You will be expected to attend every class in order to get the maximum benefit.

2. However, life brings emergencies, illnesses, and work-related schedule conflicts. When you need to be absent, pick up an absentee slip, fill it out, and give it to your instructor.

3. No student will be allowed to miss more than four classes or four employee donated hours.

4. Please notify the WSEP Office at extention 3871 and your instructor when you experience a schedule change or a vacation.

5. If you attend work and do not attend class, you will be expected to work according to your regular schedule.

6. The WSEP COMMITTEE will help to monitor and assist students with any conflicts of schedules or interests. (See names listed on the board.)

7. If you foresee any problems with your attendance, talk it over with the instructor.

- -

I read the above information and understand the reason for the Absentee Policy.

SIGNATURE: ______________________________ DATE: ____________

SURVEY OF LEARNER NEEDS

Please survey your class so that we can meet the end of the session needs of participants. Be sure to follow-up on those who are absent by telephoning them at work or at home.

CONTINUING	FINISHING	NEEDS COUNSELING

If students are continuing in the program, list in which class they will be placed in: Class I, II, GED, or IV under their name. In order to do well in Class IV and GED, learners should know math up to fractions and be reading independently on a 9th grade level.

If students are ending their participation in the program, write the method of evaluation used to determine their progress (Casas, Job Book, or Instructor-Made Test).

If a student needs counseling, briefly identify their need, question or concern.

Please return to my mailbox no later than August 8th. This is essential information. Enrollment and class size will be impacted by this information.

WSEP Database

LAST NAME	FIRST NAME	ADDRESS	CITY/STATE	ZIPCODE	SOC. SEC. #	DEPT. #	BADGE #	SHIFT	EXT. #	HOME PHONE	AGE	SEX	RACE	HD. HOUSEHOLD	YRS. W/CO.	JOB TITLE

SUPERVISOR	COUNSELED	ASSESSMENT SU91/Reading	ASSESSMENT SU91/Math	PRE-TEST SU91/Reading	PRE-TEST SU91/Math	PLACED SU91	OUTCOMES	POST-TEST SU91/Reading	POST-TEST SU91/Math	COUNSELED

ASSESSMENT F91/Reading	ASSESSMENT F91/Math	PRE-TEST F91/Reading	PRE-TEST F91/Math	PLACED F91	OUTCOMES	POST-TEST F91/Reading	POST-TEST F91/Math	COUNSELED	ASSESSMENT S92/Reading	ASSESSMENT S92/Math

PRE-TEST S92/Reading	PRE-TEST S92/Math	PLACED S92	OUTCOMES	POST-TEST S92/Reading	POST-TEST S92/Math	COUNSELED	ASSESSMENT SU92/Reading	ASSESSMENT SU92/Math	PRE-TEST SU92/Reading

PRE-TEST SU92/Math	PLACED SU92	OUTCOMES	POST-TEST SU92/Reading	POST-TEST SU92/Math

V. Hiring and Training Faculty and Staff

Hiring

In hiring faculty and staff, several important principles were significant. Affirmative action guidelines governed the hiring of all employees for the program. Also, it was important to communicate to applicants how being housed in a high security workplace required adjustments to company policies and procedures.

Program administrators and faculty were chosen by search committees which had representation from the English, Reading and Math departments at Essex community college. The committees looked for candidates who not only had competency in their fields and experience in working with adults, but who could adapt their skills to a non-traditional educational setting.

Because faculty was hired on yearly part-time contracts rather than on a course by course basis, they were able to be involve with curriculum and staff development activities at theboth the beginning of the grant and between sessions. In addition, faculty pay included time for class preparation, enabling the program coordinator to collect weekly lesson plans to guarantee that the workplace connectrion was being made in all lessons.

The program secretary, who worked part-time, was chosen for her abilty assist the program coordinator and counselor within a flexible work setting. She kept careful records in files and on a database in order to report information, organize attendance records and complete mailings. Her excellent oral and written communication skills were an asset when she interacted with company and college officials, faculty, learners, and workplace supervisors. Courtesy and efficiency were important, because she was very often the first contact to the program.

(See job descriptions which follow.)

Faculty Training and Development

In the beginning of the program, three days were devoted to faculty orientation which included the following activities: introductions to Martin Marietta staff in Production Technology Training, an orientation and a tour by the Martin Project Co-Director, a review of the faculty handbook, introductions to the advisory board, badging, Casas orientation by the Academic Counselor, orientation to the second site with a tour of the plant; a discussion of the curriculum and a review of books, software, and catalogues for ordering new materials. At the end of this third day of orientation, an evaluation (see form which follows) was given and the initial criticism was ,"There isn't enough time." A fourth day was added so that faculty could pursue topics of greatest need or interest to them.

A handbook was prepared before the faculty came on board which contained the most critical information (see table of contents which follows). This manual contained retention practices, phone numbers for emergency purposes and for communication practices, a general curriculum which contained a compendium of identified skills which are important in the workplace, and special policies that the company published in the form of brochures and memos. The handbook provided an important resource for the new faculty.

Monthly faculty meetings provided continual workplace literacy training. The program coordinator presented topics on workplace literacy and articles by such experts as Tom Stitch and Jorie Phillippi. These meeting also provided essential faculty feedback on problems, concerns, and questions that arise naturally when education professionals are thrust into a manufacturing environment. See a typical faculty meeting agenda which follows.

Resource materials were plentiful and faculty sampled a variety of books and software. Faculty borrowed catalogues and always had the option of ordering new materials for their learners. Instructors were given many workplace documents such as memos, manufacturing process plans and policy brochures, from which to plan lessons. In the week between sessions, instructors spent their working hours developing curriculum or writing workplace related lesson plans.

On-going faculty training activities included attendance at professional development conferences such as: The Maryland State Department of Education's Professional Development Institute in the spring and fall, Future Workforce Conference in the fall of 1991, the Maryland Adult and Continuing Community Education Conference in spring of 1992, and the Developmental Education Association of Maryland Conference in spring of 1992. Attendance was voluntary, and every instructor participated in each. Participation in these local conferences was strong, because instructors were able to choose the workshops they had an interest in and their conference fees were paid by the college.

On-going communication and interaction were also encouraged by telephones in classrooms, weekly memos, and informal class visits by the Essex Project Co-director, Program Coordinator, and Academic Counselor. A supportive, encouraging learning environment needed to exist for the entire staff, so that that same kind of environment could find its way into the workplace classroom.

Learning about the partners and their values and expectations helped to promote a program sensitive to the needs of the diverse cultures both within the conference room and within the classroom. The Workplace Skills Enhancement Program was a learning experience for everyone involved. Our attitude reflected that of a researcher: we were here to observe and to learn, and as we learned, we applied it to the world of work.

Job Description

Job Title: Workplace Literacy Project Co-Directors

General Function: To serve as administrative liasons between Martin Marietta Workplace Literacy Program, Martin Marietta, and Essex Community College. Responsible for general program supervision.

Position Requirements: Masters' degree in Education or related field required, as well as experience in administering a literacy, adult basic education or developmental/remedial program. Knowledge and experience in assessment, adult education instruction and learning laboratories. Good communication and organizational skills.

Specific Functions:

Using established search procedures, is responsible for the selection and hiring of all program personnel

Participates on the Advisory Committee in overseeing all aspects of program, including assessment, placement, counseling, support services and instruction

Supervises curriculum development

Conducts program evaluation, using guidelines established in the grant proposal

Supervises program coordinator for both instruction and program administration

Aids program coordinator in the supervision of other staff members

Approves budget requests and monitors budget

Job Description

Position: Workplace Literacy Program Coordinator

Supervisor: Workplace Literacy Project Director

General Function

Serves as full-time administrator on-site for Martin Marietta Workplace Literacy Program. Responsible for managing program components, such as assessment, placement, counseling and course offerings. Instructs courses within the program.

Position Requirements

Bachelor's degree required, Master's degree preferred, in Education or related field. Minimum of two yers experience in teaching basic reading and math skills to adolescents and/or communication and organizational skills with ability to independently administer a program are highly desirable.

Specific Tasks

Supervises program secretary
Supervises academic support counselor and part-time staff
Works with Martin Marietta Production Technology Training Staff to schedule assessment sessions
Assists in the administration of assessment tests, interpretation of results and placement of students
Develops curriculum
Coordinates and schedules class instruction for all courses
Instructs literacy classes four to ten hours per week
Consults and assists with academic support counselor in preparing individualized education plans
Monitors purchasing and use of supplies and instructional materials
Works with project director on program evaluation
Works with secretary to develop a data base of program participants
Serves as a member of the Advisory Committee
Assists in instruction, as needed

Job Description

Position: Academic Support Counselor

Supervisor: Workplace Literacy Program Coordinator

General Function

Full-time position providing assessment, counseling, support, and academic assistance to students in the Martin Marietta Workplace Literacy program. Responsible for overseeing the daily operation of the learning process. Conducts individualized and group counseling to help participants develop educational goals and individualized educational plans. Assists program coordinator in assessment and placement.

Position Requirements

Bachelor's degree required, Master's preferred, in Education or related field, with two years experience providing academic support to adolescents and/or adults. Background in educational counseling and Tutoring highly desirable. Strong personal communication skills and organizational skills are required.

Specific Tasks

Administers assessment tests to small groups of workers

Interprets assessment results to workers and places them in appropriate courses

Develops Individualized Education Plan with each worker and uses plan in individual counseling

Presents group sessions within classes on motivation, goal-setting, time scheduling, study habits, and career planning

Operates the learning lab by assisting student in using materials, grading exercises, monitoring progress with materials, and tutoring

Supervises lab monitors provided by union

Assists in instruction, as needed

**ESSEX
COMMUNITY
COLLEGE
Baltimore County, Maryland 21237**

PLEASE POST

NOTICE OF PROFESSIONAL STAFF OPENING

Education

WORKPLACE LITERACY
INSTRUCTORS
Part-Time

Immediate opening for part-time assignments to teach workplace literacy and adult basic education courses at Martin Marietta plants in Middle River and Glen Burnie, MD. Bachelor's degree, two years experience teaching workplace literacy, ABE, GED, or remedial/developmental education, competency in basic reading and/or mathematics instruction with facility working with adults, and ability to address various learning styles and aptitudes, use a variety of instructional techniques, including CAI, and work in non-traditional educational settings required. Master's in reading, English, Education, or related field preferred. Twelve month assignment, with continuation contingent upon successful performance and continued grant funding. Apply with cover letter and resume by April 8: Catherine Griffin, program coordinator, Workplace Skills Enhancement, Office of Developmental Education, ESSEX COMMUNITY COLLEGE, 7201 Rossville Boulevard, Baltimore County, Maryland 21237.

Essex Community College is committed to Affirmative Action and Equal Opportunity

DISTRIBUTED:
March 18, 1991

Job Description

Position: Workplace Literacy Instructors

Supervisor: Workplace Literacy Program Coordinator

General Function

Part-time positions responsible for curriculum development and instruction in GED preparation and Adult Basic Education courses.

Position Requirements

Bachelor's degree required, Master's preferred, in English, Education or related field. Two years experience teaching workplace literacy, ABE, or remedial/developmental education required. Competency in basic reading and/or math instruction with facility in working with adults required. Ability to use a variety of pedagogical techniques in providing instruction.

Specific Functions

Participates in curriculum development for courses within the program

Prepares lesson plans, text assignments and periodic evaluation for students

Teaches Workplace Literacy, Practical Work Applications and/or GED classes, using a variety of pedagogical techniques

Assists in interpretation of assessment results and I.E.P. interviews

Assists in program evaluation

Assigns learning laboratory activities to students

Job Description

Position: Workplace Literacy Secretary

Supervisor: Workplace Literacy Coordinator

General Function:

Half-time position to assist in clerical duties for the Martin Marietta Workplace Literacy Program.

Position Requirements:

High school graduate or equivalent with two years of clerical experience. Ability to type 40 WPM accurately. Knowledge of basic office machines and experience with word processing and database. Good organizational skills, strong verbal and written communication skills, and ability to work independently.

Specific Tasks

Answers the telephone and serves as program receptionist

Types all correspondence and reports

Assists in the maintenance of computerized student database

Prepares purchase requisitions and handles supplies

Answers student inquiries concerning program

Assists in arrangement of details concerning assessment, course scheduling and textbook distribution

Maintains filing system

Operates copy machine

Performs other duties as assigned by coordinator

Types and duplicates instructional materials

WORKPLACE SKILLS ENHANCEMENT PROGRAM
FACULTY HANDBOOK

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  THE FIRST CLASS
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IX. ABSENTEE POLICIES
  LEARNER
  INSTRUCTOR

X. DIRECTORY

XI. MARTIN MARIETTA POLICIES/PROCEDURES

SAMPLE FACULTY MEETING AGENDA

TIME:
DATE:
MEMBERS:

1. FACULTY ADDITIONS TO AGENDA (problems, questions, concerns, etc.)

2. THE WORKPLACE CONNECTION

3. VOCABULARY/CURRICULUM RESOURCES

4. RECRUITMENT/ATTENDANCE

5. SPECIAL PROFESSIONAL DEVELOPMENT OPPORTUNITIES

6. LESSON SHARING/OPEN DISCUSSION

VI. Formative Evaluation Procedures

Evaluation was intended to provide information to improve the delivery of education services to the learner and the company. We used a variety of tools to assess student outcomes, to measure instructor effectiveness and to determine the value of the program to the company. In addition, an external evaluator visited the program on-site and prepared a report.

Student Achievement

Academic outcomes were examined every semester through the comparison of CASAS pre and post test scores. In addition, learners completed pre and post self-esteem surveys every semester to determine if they felt that they had achieved gained in communication, self-esteem, computer usage, or confidence as workers. Scores from both of these instruments were logged onto the computer data base, and gains were tallied and summarized every semester. Finally, all instructors were required to collect and record anecdotal evidence of student growth, in order for us to gain a more hoistic view of student success.

Instruction

Because the instructional program developed over time, and faculty needed the opportunity to adjust to the manufacturing environment, instructor evaluations began on an informal basis with the Essex Project Co-Director and the program coordinator visiting classrooms and holding conferences. No formal, written documentation of these visits was done the first semester. In order to facilitate the program becoming a workplace literacy program, major emphasis was placed on what we called "THE WORKPLACE CONNECTION." By this, we meant that workers and instructors needed to talk about how basic skills relate to accurate and efficient performance on the job. This "WORKPLACE CONNECTION" also gave the instructors some flexibility because each worker had a different job. Instructors and students provided packets of documents to to use for special instruction in class. For example, a micrometer might be brought to class to review special measurement practices associated with determining accuracy of drilling for rivets or the precise thickness of a piece of metal. It was in this initial phase of the program that instructors acquired the habit of conducting individual student interviews and working with their classes both individually and in small groups around the concept of "THE WORKPLACE CONNECTION."

We observed in our initial evaluation visits that instructors needed suggestions about how to manage some of the workplace factors that affected their class structure. For example, as is common in many workplace literacy programs, we experienced staggered entrance and exit of learners. Through informal evaluation conferences and follow-up memos, we offered instructors a cadre of ideas for classroom management and instructional practices to meet the particular needs of the learners in a flexible way.

Formal evaluations began in the second session and continued every session. The evaluation forms were shared with the instructors so instrucors would know what to expect. Much of the stress which characterizes evaluation was dispelled by conferences in which the teachers were encouraged to discuss and evaluate their own lessons.

Instructors themselves conducted informal evaluations at the mid-point of the the session in order to identify emerging educational needs of learners. The college also administered a formal evaluation at the end of each class to determine instructor and course effectiveness.

Value of Program to Company

The Martin Marietta Project Co-director worked closely with Essex staff to develop a survey, to be distributed to the supervisers of all participants to measure perceptions of workers' attendance, punctuality, work habits, work attitudes and safety. This survey was distributed at the end of the third, fourth and fifth seesions. Unfortunately, because of the normal shift of workers and supervisors from job to job within the company, it was impossible to obtain information about every participant in the program. Nevertheless, almost seventy per cent of the surveys were returned by the final semester, and the company was provided with valuable information about the perceived usefullness of the program to the supervisors on the floor.

In addition to the supervisor survey, a Data Tracking Team from Martin Marietta consisting of manufacturing and quality management specialists met weekly to determine a system to track productivity. By using Martin Marietta's computer based tracking system, performance of a small number of learners was examined over a fifteen month interval. Unfortunately, we were not able to receive the results of this study early enough to use it in a formative way to adjust curriculum; however, it provided us with an interesting picture of performance effect. The model created by Martin Marietta promises to be useful to other companies who are trying to measure the effects of workplace literacy programs on productivity.

NAME:

INITIAL SELF-ASSESSMENT INVENTORY FOR WSEP PARTICIPANTS

Directions: Answer the questions so that we may compare your answers to the inventory you will take when you complete the course.

1. I judge my self-esteem as
    1. low
    2. average
    3. high

2. My ability to use computers can be rated:
    1. low
    2. average
    3. high

3. I feel that my attitude toward my job is
    1. poor
    2. average
    3. very good

4. My ability to learn new technology/tasks on the job is
    1. fair
    2. average
    3. very good

5. My confidence as a learner , I rate as
    1. fair
    2. average
    3. high

NAME:

FINAL SELF-ASSESSMENT INVENTORY FOR WSEP PARTICIPANTS

Directions: Answer the following questions so that we can determine how you have benefited from the program.

1. My self-esteem has increased because of my participation in the program:
    1. not at all
    2. somewhat
    3. definitely

2. Because of my exposure to computers, I feel that I can easily learn the new programs/software that may be implemented on the job:
    1. not at all
    2. somewhat
    3. definitely

3. Participating in WSEP has helped to improve my attitude about my job:
    1. not at all
    2. somewhat
    3. definitely

4. Participating in WSEP has helped me to feel more confident as a worker:
    1. not at all
    2. somewhat
    3. definitely

5. Participating in WSEP has helped me to feel more confident as a learner:
    1. not at all
    2. somewhat
    3. definitely

6. I feel that I have improved in my communications with coworkers and supervisors.
    1. not at all
    2. somewhat
    3. definitely

WHAT SKILLS OR INFORMATION FROM THE CLASS DIRECTLY AFFECTED YOUR PERFORMANCE ON THE JOB?

WSEP SUPERVISOR FOLLOW-UP SURVEY

Supervisor's Name:
Dept.:
Participant's Job Title:
Date:

As a workplace supervisor, you can provide valuable information periodically regarding this person's job readiness. Please read the following list and check mark in the square that best describes how you feel. If the question is not applicable, please leave blank

		Not At All	Somewhat	To A Large Extent
I.	Since being enrolled in WSEP:			
1	Is employee punctual in arriving to work?			
2	Does employee attend work when scheduled or notify supervisor in advance of absence?			
3	Does employee leave early from work? (Do not include WSEP class time).			
4	Does employee maintain an acceptable attendance record?			
II	Have you noticed improvement in:			
1	Employee following directions (oral/written)?			
2	Work Quality?			
3	Completing tasks/assignments on time?			
4	Working effectively without supervision?			
5	Computer/keyboard skills (time clock, paperless MARS or job clocking)?			
6	Resolving work related problems?			

		Not At All	Some what	To A Large Extent
III	Does employee demonstrate positive attitudes / behaviors by:			
1	Showing self-confidence?			
2	Demonstrating reliability and dependability?			
3	Adapting to changes at work (flexibility)?			
4	Participating in PMT meetings?			
IV	Have you noticed improved interpersonal relations of participants by:			
1	Cooperating with co-workers?			
2	Reacting appropriately to direction and criticism?			
3	Lower number of complaints?			
V.	Does employee show safety awareness by:			
1	Having less accidents?			
2	Wearing proper protective gear?			
3	Understanding and practicing safe working practices?			
VI	Would you recommend			
1	This employee for a higher level job?			
2	WSEP for other employees?			
VII	Comments			

WORKPLACE SKILLS ENHANCEMENT PROGRAM

EVALUATION

1. The instructor maintains attendance records for each student each day.
   Often
   Sometimes
   Never

2. The instructor provides for a comfortable, well-lighted environment.
   Yes
   No

3. The instructor has written lesson plans for each class which show a variety of instruction modes which can be adapted to a variety of learning styles and individual differences.
   Yes
   No

4. The instructor uses 30-50% of instructional time on CAI.
   Yes
   No

5. The instructors act as a guide/facilitator to the student's learning.
   Often
   Sometimes
   Never

6. A connection is made between the curriculum/lesson and the workplace.
   Often
   Sometimes
   Never

7. The instructor asks open-ended questions or encourages the learner to ask questions.
   Often
   Sometimes
   Never

WORKPLACE SKILLS ENHANCEMENT PROGRAM

Instructor Evaluation

Date: ______________________ ***Instructor:*** ________________________

1. Classroom:
   a. clean.
   b. well-lighted.
   c. orderly.

2. Lesson:
   a. well-written.
   b. well-planned.
   c. context related.
   d. workplace related.

3. Learn-Centered Activities:
   a. variety of activities which appeal to various learning styles.
   b. learner generates questions.
   c. learners collaborate with each other.
   d. instructor asks open-ended questions.
   e. instructor invites questions.
   f. instructor let's learner's response take precedence over instructor's response.
   g. CAI is used.
   h. think-pair-share and group work are used often.

4. Non Traditional Learning:
   a. worksheets with drill and practice are not used often.
   b. learners bring problems from real life to class.
   c. lecture and the presentational style is not used often.
   d. manipulative materials are used to make learning concrete.
   e. workbooks are used only for homework.

5. Instructor:
   a. personable and open to learner suggestions.
   b. punctual/stays in class w/learners.
   c. acts as a facilitator/guide.
   d. gives individual attention to learners.
   e. creates an atmosphere of learning.
   f. promotes "learning to learn" rather than learning the facts.
   g. promotes learning strategies rather than mastery of the facts.
   h. promotes critical thinking activities or "thinking about thinking" (metacognition).

i. learner and instructor communicate freely.
j. instructor creates a supportive learning environment.

6. Administrative:
   a. instructor completes paperwork on time and turns it in to the office.
   b. keeps coordinator well informed of any problems involving learner attendance or behavior.
   c. can accept constructive criticism from administrators.
   d. complies with turning in context related lesson plans weekly.
   e. keeps program and participant information confidential.
   f. discusses any change in hours with coordinator.
   g. discusses conflict in a mature manner.
   h. arrives on time to meetings.
   i. responds to memoes with questions or communication.

Comments of Evaluator:

Comments of Instructor:

Signature of Instructor: ______________________

Signature of Evaluator: ______________________

ESSEX COMMUNITY COLLEGE

OFFICE OF CONTINUING EDUCATION

NSTRUCTOR'S NAME______________________ TITLE OF COURSE______________________

ATE OF THIS EVALUATION_________________ DATES OF COURSE______________________

NON-CREDIT COURSE EVALUATION FORM

lease rate the following statements as honestly as possible. Put a check by the nswer which most accurately expresses your thoughts.

1. THIS COURSE WAS:

_____Very interesting
_____Usually interesting
_____Slightly interesting
_____Not interesting at all

2. THE INSTRUCTOR'S PRESENTATIONS WERE:

_____Excellent
_____Good
_____Fair
_____Poor

3. THE LEVEL OF INSTRUCTION IN THIS COURSE WAS:

_____Much too high
_____About right, reasonably challenging
_____Too low to challenge me
_____Much too elementary

4. THE INSTRUCTOR WAS PREPARED FOR CLASS:

_____Always
_____Almost Always
_____Sometimes
_____Almost never

5. THE INSTRUCTOR'S ATTITUDE TOWARD STUDENTS WAS:

_____Very helpful/available
_____Reasonably helpful/available
_____Only occasionally helpful/available
_____Never helpful/available

6. MY PERSONAL EXPECTATIONS FOR THIS CLASS WERE:

_____Exceeded
_____Achieved
_____Reasonably achieved
_____Not achieved

7. WOULD YOU TAKE ANOTHER COURSE FROM THIS INSTRUCTOR? YES____ NO____

8. WOULD YOU TAKE ANOTHER COURSE IN THIS SUBJECT AREA? YES____ NO____

STUDENT EVALUATION
CONTINUED

PLEASE SHARE YOUR THOUGHTS WITH US ON THE FOLLOWING QUESTIONS.

1. WHY DID YOU TAKE THIS COURSE?

_____Job requirement/certification requirement
_____To learn new skills useful in job
_____Personal enrichment

Other____

2. WHAT DID YOU LIKE BEST ABOUT THE COURSE?

3. WHAT DID YOU LIKE LEAST ABOUT THE COURSE?

4. WHAT CHANGES WOULD YOU SUGGEST TO IMPROVE THIS COURSE?

_____Increase length of course
_____Decrease length of course
_____More hands-on experience

Other____

5. LIST ANY OTHER COURSES IN WHICH YOU WOULD BE INTERESTED.

NOTE: This evaluation should be combined with others from the class and placed in an envelope which is to be sealed and given to the instructor. The instructor will be responsible for returning the sealed envelope to the Office of Continuing Education. Please note that the instructor will not have access to individual forms but will receive a copy of a summary for the class upon completion of the course.

Instructor ______________________ Course ______________________

Center ______________________ Date ______________________

The adult education staff is interested in your reaction to this course. Therefore, we are requesting that you complete the questionnaire by following the instructions below:

1. Use pencil or pen.
2. Circle the appropriate letter for each question.

	Strongly Agree			Strongly Disagree	
1. The information and/or skills presented in this course are valuable.	a	b	c	d	e
2. The class is meeting my needs.	a	b	c	d	e
3. I feel free to ask questions and make suggestions.	a	b	c	d	e
4. I would recommend this course to others.	a	b	c	d	e
5. The purpose or objectives of the course were made clear.	a	b	c	d	e
6. The books and/or materials used in this course are appropriate. (Answer #6 only if applicable.)	a	b	c	d	e
7. The overall quality of this course is very good.	a	b	c	d	e

Additional comments: ____

____

____

____

Additional courses you would like to see offered (If you know qualified instructors, please include names, addresses, and phone numbers.):

____

____

____

____

Your cooperation in completing this form is appreciated.

Note: This form is available from your adult center principal.

WORKPLACE SKILLS ENHANCEMENT
PARTICIPANT SURVEY

	YES	NO	TO SOME EXTENT
1. Did you decide not to reenroll because of the quality of instruction?	☐	☐	☐
2. Did overtime keep you from participating in the program?	☐	☐	☐
3. Did you sense any discouragement from supervisors about the time involved in attending WSEP classes?	☐	☐	☐
4. Did a co-worker's negative attitude about the program influence your decision not to rejoin?	☐	☐	☐
5. Do you feel that your morale affected your decision not to reenroll?	☐	☐	☐
6. Did threat of lay-off affect your decision not to reenroll in the program?	☐	☐	☐
7. Did problems with childcare keep you from reenrolling in the program?	☐	☐	☐
8. Did time pressures from personal or family reasons keep you from reenrolling in the program?	☐	☐	☐
9. Did medical reasons prevent you from reenrolling in the program?	☐	☐	☐
10. Did you feel that the facilities were insufficient for the program operation?	☐	☐	☐
11. Were the course offerings insufficient to meet your needs?	☐	☐	☐

ESSEX COMMUNITY COLLEGE\MARTIN MARIETTA\UAW 738 PROGRAM EVALUATION REPORT OF THE WORKPLACE SKILLS ENHANCEMENT PROGRAM

JUNE, 1992

SUBMITTED BY JOHN P. CREIGHTON, EXTERNAL EVALUATOR

SECTION I - INTRODUCTION

I spent three intensive on-site days (May 18-20, 1992) interviewing staff members from UAW 738, Essex Community College and Martin Marietta and a representative sample of employee program participants. Unbiased, neutral structured questions were used in the interview process.

Prior to this time, I had met with Catherine Griffiths, Program Coordinator, who thoroughly briefed me on the elements and dynamics of the program, and provided me with all the appropriate program materials at her disposal.

This was a federally funded eighteen month "Workplace Literacy" grant sponsored program. Essex Community College has had a ten year record of providing educational services to Martin Marietta.

This report is a compilation of the results of these processes. It includes commendations, recommendations, observations, findings and analyses.

It is written in the past tense because the planning and start-up process have been completed. Since the instructional program is continuing, the use of the past tense does not indicate otherwise.

SECTION II - COMMENDATIONS

A. ENROLLMENT ATTAINMENT

The grant proposal projected testing 1800 workers and enrolling a total of 400 workers from the two sites. As of May, 1992, 494 workers were tested and 176 enrolled. Of these enrollments, 101 registered once and 71 represented multiple enrollments. As of July, there were 295 registrations. The number tested as contrasted to the number projected to be tested is entirely consistent with the unanticipated 50% reduction in force which occurred. The actual enrollment is very commendable, given the 50% downsizing figure. Of the two projections, the number enrolled obviously is the much more important of the two. The good enrollment results stem from the strong and coordinated recruiting effort which was undertaken.

B. PROGRAM DEVELOPMENT AND IMPLEMENTATION

Despite the time constraints imposed by the grant's 90 day planning time limitation, this program was carefully and completely developed and implemented.

BEST COPY AVAILABLE

The grant partners both contributed mightily to this success. The result has been what I believe to be a national exemplary model of workplace learning.

Not only were all the proposal elements in place, but also many worthwhile components were developed which are, in themselves, worthy of dissemination and replication.

While maintaining my objectivity as an external evaluator, I was necessarily extraordinarily impressed. I found no "chinks in the armor" of this program and am hard pressed to offer any substantive recommendations for improvement.

The following commendations and recommendations narrative categories are somewhat arbitrary in nature and could have been arranged in other ways. Since the program's elements form an integrated whole - a gestalt - they do not easily lend themselves to narrowly defined categories. In many instances, both partners merit recognition.

C. RESPONSE, CONTRIBUTION AND ORGANIZATIONAL SUPPORT OF MARTIN MARIETTA

Martin Marietta provided dedicated, clean, well equipped classroom space, office space for the on-site program coordinator, shared time for the use of its computer based education lab, workplace materials needed for instruction and curriculum development (within security limitations), and the use of its facilities such as the cafeterias.

When the need arose for additional computers for the Learning Laboratory, Martin Marietta responded by promptly providing them.

Participants were paid release time on a 50% time basis. A significant portion of the company's Program Co-Director time was given to this project. Motivational activities like newsletter coverage and culminating ceremonies were carried out. Tuition reimbursement for job-related courses at Essex was provided when student workers tested out of this program.

Availability of Computer Based Education Facility

Martin Marietta's Production Technology Training Department is commended for allowing the use of its "Computer Based Education" facilities by WSEP participants. This facility provided an excellent complementary educational resource. Indeed, its Basic Skills, GED and math software programs were welcome and worthwhile educational resources for participating employees.

Perhaps of even greater significance was the development of a company hierarchical structure and a commitment of personnel to provide strong company support. Its effect was to enable decisions to be made in a short turnaround time and to impress upon the worker participants the company's commitment to the program and to their interest in workplace learning. The union was appropriately included in this structure.

A key element in this process was the development of two "Working Committees". (I attended two of their meetings.) These Working Committees were created expressly for this program. They make their decisions on a group consensus basis. They developed the employee presentation format, the presentation system of delivery, and identified the target group.

The first presentations were made to supervisors. Then presentations were made to employees directly, primarily through the use of key groups called "Performance Measurement Teams".

Brochures were developed and distributed as part of the recruitment process. With union assistance, a recruiting video tape was made. This process was interactive with Martin Marietta taking the lead but with continuing involvement from Essex Community College.

The Working Committee did a great deal of program planning. They assisted with curriculum development by submitting the job tasks of employees to the Program Coordinator. Additionally, they assisted in locating appropriate company class sites.

While putting together the recruitment presentation, the group met weekly. Later, they began meeting on an average of twice a month.

In my view, one of the key elements of the successful program planning and development process was the establishment of a program-specific Advisory Committee. Its membership included high level company decision-makers who had immediate authority to approve requests made by the Working Committee. Communication lines were open in both directions.

The Advisory Committee provided feedback to the Working Committee. When a problem was identified, the Working Committee put it at the top of their agenda.

In like manner, the Working Committee often learned about concerns of individual students by way of learners contacting one of its members or by students raising issues with supervisors.

This two committee process worked effectively in response to grant requirements listed for the company partner. Issues were examined at top management level and brought to the Working Committee for resolution. The Advisory Committee recommended appropriate contact persons for issues resolution. The Working Committee then determined the most effective course of action. Upper management was always involved through the Advisory Committee. They were needed for final approval of some decisions.

D. PROGRAM PLANNING OF ESSEX COMMUNITY COLLEGE

The administrative needs of the program were carefully thought through to provide sufficient support for staff and students.

Clearly written specific job descriptions were developed for all positions:

There were two Project Co-Directors, one from the college and one from the company. They were responsible for general program oversight and served as administrative liaisons among the college, the company and the union.

The Program Coordinator was the full time on-site administrator. Her responsibilities included direct day-to-day supervision, service as one of the instructors - on a four to ten hour a week schedule - and membership on the Working Committee at each of the two sites. She also served on the Advisory Board and supervised the budget, curriculum development, staff development activities and the staff evaluation process.

The Academic Support Counselor worked full time. She prepared IEP's, administered assessment tests, oversaw the Learning Labs, provided workshops, and assisted with instruction and with the on-going counseling of individual students.

One half-time Program Secretary maintained the computerized data base and performed typical secretarial tasks.

Hourly rate instructors were involved in curriculum development, instruction, the evaluation of student progress, and the assignment of students to Learning Lab activities.

A well written, very specific needs assessment was conducted. From this needs assessment, one overarching program goal and ten eighteen months goals with measurable objectives were developed.

Workplace literacy audits were conducted at both sites. The audits included shadowing competent workers and conducting interviews. CASAS Workplace Needs Analyses were completed. Initially targeted for enrollment were assemblers and assembler installers.

A written WSEP philosophy was developed. Instructors demonstrated a good grasp of adult learning principles and practices in their written responses to a series of statements about how adults learn.

E. PROMOTION AND PUBLICITY

Excellent Workplace Skills Enhancement Program brochures were developed and widely distributed. They properly listed the program as, "A Martin Marietta, Essex Community College, UAW Local 738 Career Development Partnership".

A prominent article, "Company Classrooms", which included a section about the WSEP, was featured in Martin's March 25, 1992 issue of its "Star" newspaper.

The program developed, printed and distributed its own newsletter, "The WSEP Journal". Editions were published for both locations.

In addition to staff-written articles, student authored articles were published.

Two other promotional activities were the develoment and use of a video-tape, and a GED ceremony. This ceremony was a source of great pride to those honored. It was given added prestige by the attendance and support of high level company executives.

F. DATABASE DEVELOPMENT

Penny Jester and Donna McKusick are commended for having developed and maintained a two part student information database:

a) A student roster was developed and used which listed first name, mailing address, company department number, shift, age, sex, race, head of household status, years with the company and job title.

b) The second section contained the following additional information: supervisor's name, whether or not counseled, MAPP/CASAS pre-test reading and math scores, SU91 reading and math pre-test scores (where appropriately given), placement (if placed), program status, post-test scores and point differentials from pre-test scores, further testing results (after post-testing), and further placement. MAPP/CASAS gains were summarized both in table and bar graph format.

I found these gains to be exceptionally high when contrasted with gains reported by the more traditional ABE programs in Maryland. Perhaps the nearly uniformly high MAPP/CASAS test scores (above C Level) point to a need for higher level ability assessment tools for these students.

G. INSTUCTIONAL DIVERSITY & INSTRUCTOR EFFECTIVENESS

Classes include Class I (lower level ABE); Class II (upper level ABE); Practical Work Applications and GED Preparation (both 9-12), and Introduction to Computers.

> "Types of reading and writing on the job differ considerably from the literacy activities of students in schools. The purposes and strategies involved in student reading and writing in school are often inappropriate and ineffective in the workplace. Diversity characterizes reading and writing in the workplace. Traditional teaching... seems to have little transfer to the workplace." (Larry Mickulecky, Jeanne Ehlinger and Avis L. Meenan, "Training For Job Literacy Demands: What Research Applies to Practice", Institute for the Study of Adult Literacy, The Pennsylvania State University.)

I visited five different classes. Without exception I found the quality of instruction and record keeping to be outstanding.

Individual record folders ("portfolios") are maintained for each student. They contain a jointly developed Individual Education Plan (IEP) which includes test scores, educational background, work history, a self-assessment of strengths and areas to improve upon; and long term, short term goals and immediate steps to take toward those goals. The IEP is signed by the student and the counselor. At both six week and twelve week intervals, an IEP interim interview is conducted and a student report generated with report forms signed by the student and the counselor.

Classes were available for the lower level students, for GED ability learners, for higher level students not in need of a high school diploma; and an Introduction to Computers for all interested students. In particular, this course development is commendable since the company is moving to a paperless system and computer literacy is becoming an essential job requirement for workers at all levels.

During my class visitations, I verified records of IEP's, writing samples, job need assessments, GED Practice Test scores, workplace-related charts, lesson plans and current attendance records.

I found, without exception, students hard at work and extremely interested in their learning tasks. The quality of the teaching was exceptional. Instructors answer any and all questions and go back over work when needed. They are non-evaluative and non-judgmental in responding to students.

The instructors created the proper adult learning climate, individualized their lessons, developed and used workplace materials, and were warm and caring yet professional.

Class I work includes a great emphasis on basic reading and writing skills. Journal writing is an important element.

An initial self-assessment inventory is done and later, a final self-assessment. A writing sample is taken to assess composition and expression skills. Reading includes reading through following written directions, and reading "Manufacturing Process on Coating Metals" material. Also involved are flow charts and accompanying explanations, technical vocabulary development, and writing using the computer.

Class II utilizes Learner Self-assessments and the MAPP/CASAS testing program. Instruction includes "Introduction to Technical Vocabulary in Context" (from recertification tests); identifying technical information; interpreting graphs, directions, and workplace texts; and using the Macintosh Computer. Notebook organization is taught. A form is used called, "What Skills Do You Need to Do Your Job?". Worksite graphs are studied. Journals are maintained. The company newsletter is used. Computer practice is included.

Computer class student attendance times are staggered to allow for optimum participation. All students can check out materials from the "Learning Library".

H. CURRICULUM DEVELOPMENT AND THE WORKPLACE CONNECTION

Written curricula were developed for all courses offered. Both oral and written communication are included. The unifying theme across curricula was what the program calls "the workplace connection", the practical application of workplace materials used in the classroom.

Of special interest to me was the development and use of a "Technical Vocabulary in Context" curriculum guide. Vocabulary listings were developed from the company's Generic Safety and Health Training course and from certification and recertification tests.

Pre-tests, post-tests and instructional goals are included in this package along with recommended resource materials. Its name is somewhat of a misnomer since the guide goes well beyond mere technical word definition. Included are a wide array of lesson plan samples which provide instructors with many varied ideas for presenting this material and measuring learning.

This guide should be of particular interest to any other workplace learning providers involved with the provision of services to a high tech manufacturing company.

I reviewed all of these very comprehensive and excellently written Curriculum Guides which have been developed for all classes. They are used as "process control" documents to assure the workplace connection in classrooms. Included is a work improvement document, "Working Ideas Together".

The "Vocabulary for Computers" document also goes beyond mere vocabulary. Diskettes, software and data bases are part of this package.

The "Technical Vocabulary" section was developed using Martin Marietta's "Glossary of Common Technical Terms".

I. COUNSELING AND SUPPORTIVE SERVICES

This component is another workplace area which is exemplary and merits replication by other programs. It is a major contributing reason for the program's high retention rate.

A full-time Academic Support Counselor/Teacher is on site to provide student support. Such a function, carried out by a qualified staff person, is essential to the success of a workplace learning program.

Elizabeth Mandlen is commended having helped to develop her responsibilities and for allocating her time wisely to ensure this support. (A portion of the following description comes from my interview with Ms. Mandlen.)

At the inception of the program, this position was weighted 80% counseling. It gradually shifted over time to its present ratio of 20% counseling and 80% teaching. She now teaches four days a week and has taught all four classes.

During the first week of recruitment alone, about 200 employees were tested at a designated area using the MAPP/CASAS Assessment System. The Counselor shared test results with individual students, assisted them in selecting a class placement, and registered them. This process continued throughout the term of the grant on a first Friday of each month schedule.

The Counselor developed motivation, stress management, career counseling and self-esteem workshops, most of which she has taught each semester. She met individually with each student for placement and IEP preparation. She conducted in-progress interviews after 6 weeks.

The Counselor was the primary ~~editor~~ Contributor of the WSEP Journal Newsletter. She also administered the "Self-Directed Search", checked out college offerings for students, and recommended on campus counseling at Essex Community College.

J. PROGRAM STUDENT RETENTION

Program staff are commended for having initiated retention procedures which produced an extraordinary retention rate of 85%. Established procedures included completion of an absentee form and a follow-up telephone call. The program's extraordinarily high retention rate record is attributable to the coordinated efforts of both partners in reaching and counseling absentees. In addition to the Program Coordinator and the Academic Support Counselor, shop stewards, supervisors, class members, and members of the Working Committees all were instrumental in getting workers back to class. Learning gains are a direct function of regular attendance. Without this key attention to student retention, academic progress would not have been so great.

K. FORMATIVE EVALUATION THROUGH SURVEYS PROCESS

Both participants and their supervisors were surveyed to determine perceived improvements in workers' attitudes and job performances.

1. WSEP Supervisor Follow-up Survey

Supervisors of program participants were surveyed across twenty-two areas of participant employee effectiveness. The results form one element of measurable documented formative evaluation procedures.

Only 12.18% saw no improvement. While we will never know, it could be that these employees were already at a high level of effectiveness which would not have been increased by any educational program.

Some improvement was reported by 40.73% and a large improvement noted by 36.18%. No response was elicited from 10.91% Of those responding then, 15.6% noted no changes while 84.6% reported either a moderate or a large improvement in the work effectiveness of their participating employees.

2. "Self-Esteem" Survey

Thirty-one participants who had completed one or more semesters were surveyed along six areas. The total of positive responses were:

Increased Self-esteem: Definitely - 77%; Somewhat - 23%; Total - 100%

Improved Computer Use: Definitely - 42%; Somewhat - 45%; (Not Applicable - 10%) Total - 97%

Improved Attitude Toward Job: Definitely - 65%; Somewhat - 32%; Total - 97%

More Confident as Worker: Definitely - 68%; Somewhat - 32%; Total - 100%

More Confident as Learner: Definitely - 77%; Somewhat - 23%; Total 100%

Improved Job Communication: Definitely - 45%; Somewhat - 35% (Not Applicable - 20%) Total - 100%

3. Job Bank Survey

This worker participant survey included seven forced choice sections and open-ended sections. Responses provided additional information and recommendations to instructors concerning work related areas to explore.

The college's Continuing Education course evaluation forms were used to elicit participant worker program evaluation information from their perspective.

L. QUALITY AND EXTENT OF PROFESSIONAL STAFF DEVELOPMENT

Staff development activities were well planned and extensive to assure a thorough staff understanding of the unique nature of this program. A guided plant tour was included. The company briefed staff on CBE certification requirements. Five workshops were conducted which covered such topics as curriculum development, the workplace connection, learning styles, Macintosh software and learning disabilities.

Many staff attended statewide activities such as the Maryland State Department of Education's Professional Development Institute, regional conferences, and the annual conference sponsored by the Maryland Association for Adult, Community and Continuing Education.

Staff meetings were held monthly while Coordinator memos provided further communication. A Faculty Handbook which had been developed and distributed was referred to frequently.

A Workplace Skills Enhancement Program Staff Evaluation instrument was designed and approved by the staff. The Outreach and Technical Assistance Network Communication System (OTAN) was made available to all staff interested in the latest research in adult education. Of special interest were OTAN sections relating to competency-based adult education and the role of learner culture in adult literacy classrooms.

The Program Coordinator provided information and training to a statewide audience in April 1992, by making two WSEP presentations at the annual conference of the Maryland Association of Adult, Community & Continuing Education.

M. GENERAL COMMENDATION TO BOTH PARTNERS

The Workplace Skills Enhancement Program reflects all of the workplace learning philosophies, processes and procedures recommended by Tom Sticht, Jori Philippi, Anthony Carnivale, Avis Meenan, Paul Delker and other recognized experts.

Since a new workplace learning grant program represents a major company intervention and change process, I wanted to examine it from a change process point of view.

My reference for this is a recognized expert in this field. The following precepts are from "For A Change" by Management Consultant Tom Justice (Justice & Associates, 2512 Second St., Santa Monica, SA 90405), in Counterpoint, Feb/Mar., 1988. (This is a national education news magazine.)

From, "Evaluation of the Change Effort":

1. Reach out vigorously to key stakeholders.
2. Plan at least twice as much time as you think you need. "Go slow to go fast."
3. The technical secret to collaborative change lies in running effective meetings.
4. Consciously avoid supplanting the existing power base; integrate existing structures.
5. There must be intelligent commitment to the project. Secure commitments from management and participants.
6. In budgeting, form must follow function. Confront the funding issue only after everyone has envisioned the right design.

From, "Operating Principles":

1. Team members have parallel roles regardless of institutional affiliation.
2. Communication is open, not confidential.
3. Look hard for meaningful data and face it directly regardless of comfort level.
4. Be in the business of growing, nurturing and protecting good ideas.
5. Reject the notion that personal and systemic boundaries and barriers are insurmountable.
6. Never forget who it is we are working to assist; it's not the bosses and peers we are normally prone to please.

As measured against these 12 precepts, one must arrive at the inescapable conclusion that the WSEP program meets all of these caveats. Since much tangible evidence is found throughout this report, it is not necessary for me to reference each of them specifically.

While these concepts may be somewhat abstract and philosophical, they appear to me to be essential to the development of a successful workplace learning program. Programs missing some of these elements will be less than successful.

The program partners are commended for their unique success with the WSEP change process.

SECTION III - RECOMMENDATION

I found the Level I Curriculum Guide to emphasize generic basic skills with little workplace skills emphasis. While technical materials would be inappropriate for this level, perhaps other materials would not. Look at workplace items like leave request forms, work orders, personnel policy manuals, union information, newsletters, pay check stubs, bulletin board notices, and similar materials to determine what materials of this nature might appropriately be integrated at this level.

SECTION IV - STAFF PERCEPTIONS OF ORGANIZATION AND STAFF AUTHORITY RELATIONSHIPS

Because of the complexity both of the partner relationships and the staff member interrelationships, both Working Committees, and the counselor and secretary were asked to manipulate boxes containing names. The purpose of this exercise was for them to depict relationships as they appeared to be in reality, rather than as they might be shown on a table of organization. This exercise was in two parts.

Part I depicts the program hierarchy as respondents saw them from a decision-making and controlling point of view. It was intended to answer three research questions: "Does one of the partners have more authority than the other? Is there an ascendancy partner relationship or not? Do perceptions differ based upon staff members' organizational orientation?"

Part II reflects perceptions of staff interrelationships across both organizations. These are the results:

GLEN BURNIE FACILITY MARTIN MARIETTA STAFF WORKING COMMITTEE DEPICTION

The Glen Burnie Working Committee chose to **explain** the relationships, rather than depicting them graphically .

These are their comments:

The Martin Marietta/Essex authority relationships varied. Initially, Martin took charge. When classes got started Essex took over and was dominating the classes. This is the way things should be. We work mostly with Nate and Catherine. Donna was more the Supervisor from Essex. Catherine was the Coordinator.

Elizabeth was involved heavily in the counseling - the student role rather than our workings. They filled the roles. The roles shifted.

Nate was the ringleader at the initial phase. Nate contacted the heavies upstairs. He had to oversee that what Catherine was doing was appropriate for the organization.

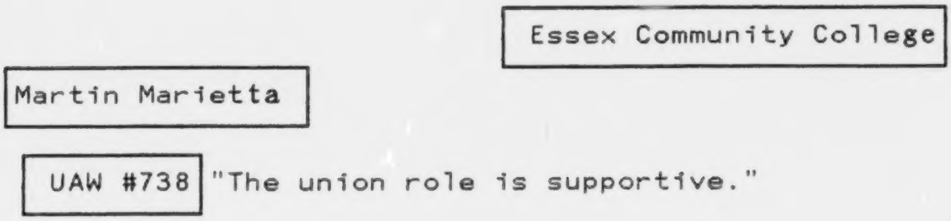
Then Catherine took over. Catherine was on her own as far as course content. But anything going to employees had to be blessed.

This is how that relationship was depicted:

NATE
CATHERINE

MIDDLE RIVER FACILITY MARTIN MARIETTA STAFF WORKING COMMITTEE DEPICTION

Part I:



"The union role is supportive."

Part II:

		Company President
		Director of Personnel
Donna (No relation to Martin)	Art Bland	Mgr. Employee Staff & Development
Catherine (Direct relation with Nate)		Nate (Direct relation with Catherine)
Elizabeth	Don Rainey (support)	D. Reid
Teachers		Ken Miles & Phil

Respondents comments on above configuration:

No one individual dictated where it would go. We'd all bring it to higher authority. There was no dictatorship. We all agree that this program has been successful."

ESSEX COMMUNITY COLLEGE WORKING COMMITTEE DEPICTION:

Part I

UAW ---------------------------------- Martin Marietta

(indicates supportive role)

Essex Community College

Part II

A. The Coordinator:

Jim McAtee

Art Bland

Nate Tatum Donna

Catherine

Elizabeth

Teachers

Rainey, Reid, Ken & Phil (support)

B. The Co-Director:

Jim McAtee

Art Bland
(Brought in) Nate Donna
Catherine
Elizabeth Teachers

C. The Counselor and The Secretary

Part I:

Martin Marietta

Essex Community College

UAW (Unsure how much authority they have.)

Part II - Counselor:

Jim McAtee
Art Bland
Nate Donna

Catherine

D. Reid
Don R.
Phil & Ken
Teachers Elizabeth Penny

Part II - Secretary (She agreed with above except for the following:)

Donna

Catherine

Elizabeth

Teachers Secretary

ANALYSIS

In each instance without exception, all members of one partner organization listed the other partner - rather than itself - as dominant in the relationship.

Interestingly, Martin Marietta staff saw the education side's Co-Director as unrelated to the program as far as they were concerned. They **did** understand her to be the supervisor of the Program Coordinator. They perceived the company Co-Director and the Program Coordinator as equals with a regular, direct professional relationship. Within their own hierarchy, they included what appears to be a two person chain of command leading to the company's president. Essex Community College personnel did not include them.

Both union and management personnel agreed that the role of the UAW local was supportive in nature. Further evidence of this supportive role was provided by the remarks of the UAW representative at the Working Committee interview. I do not know how much influence UAW representatives brought to bear at Working Committee meetings. The union clearly could have and should have had a major role in the decision-making process.

Essex Community College personnel all showed the company in an ascendent position to the college. Their selections showed Nate and Donna as coequal with Catherine reporting to Donna. Elizabeth saw herself as counselor, the teachers and Penny Jester, Secretary all to be equals. Penny saw the counselor to be at a higher level with herself coequal with the teachers.

with Liz
rep. LD [illegible]

The single area of agreement among the three groups was that of some, but not all, of the personnel. Both agreed that Nate Tatum has upward communication and reporting responsibilities.

On the education side, both listed Donna McKusick, Catherine Griffiths, Elizabeth Mandlen, and the teachers in a vertical order.

Perceptions do differ based upon staff members' organizational orientation as do the perceptions of staff interrelationships across organizations. These perceived differences make it difficult to answer the question of which partner had more authority. By their very nature, these divergent responses suggest that a real balance had been struck by the partners. The differences are not really that surprising since the program could neither have existed nor succeeded without the staunch efforts of both sides.

Such success would not have been possible with a model of one partner clearly dominant and in control of the other.

The results do suggest that the partnership was complex and that working within it could not have been easy. In particular, the Program Coordinator is commended for her flexibility in working with both administrations while, at the same time, fulfilling the grant requirements imposed by the U.S. Department of Education.

SECTION V - RECOMMENDATIONS TO THE WORKPLACE LITERACY SECTION OF THE OFFICE OF ADULT EDUCATION & LITERACY, U.S. DEPARTMENT OF EDUCATION

I see two solvable problems resulting from the scheduling of grant applications, grant award notices, and the ninety day maximum allowable program planning time. I am assuming that grant fund expenditure schedules align with those of the Adult Education Act. That is, that the grants are advance forward funded with a 27 month window to expend and/or obligate funds.

1. Given a new partnership start-up situation, it is extraordinarily difficult to provide information up and down the line; secure all necessary approvals, support and endorsements; and get the program up and running effectively within the 90 day time parameter.

   Workplace Learning programs conducted by providers outside the company require several things which simply take time. One is the essential need for the education provider to learn the culture and the climate of the company. Simply put, this means that the education side must learn and then operate within the company's policies and procedures structure as it exists. They need first to understand "the way we do things around here". A similar need is for the company to understand the education partner's culture and climate. Initiating workplace learning represents a major intervention.

   The second reason for my advocating an extension of the grant planning time is related to the first reason and that is this: Staff members from each of the partners need time to get to know one another as individuals and to learn their work schedules, job responsibilities, and perceptions about what will be going on.

   Therefore, I recommend that, where needed, the planning time be extended to 120 days.

2. Given a high probability that successful, effective programs would wish to apply for a continuation grant, increase the time span between actual program start-up with classes operating, and the due date of the next year's grant application.

   The rationale for this is that more time is needed for the partners to observe and evaluate the effectiveness of the present program. Once agreed that it is effective, that then is the proper time to begin work on a subsequent grant proposal. As it is now, partners are forced to make decisions about applying for next year's grant before the present program has had time to be examined and evaluated.

   Therefore, I recommend that this time spread be enlarged by at least 90 days.

Last, but certainly not least, I acknowledge a debt of gratitude to the many staff persons who gave unstintingly of their time and expertise to make this evaluation effort possible. My thanks and appreciation to all of you.

From Martin Marietta: Art Bland, Administrator of Production Technology Training; Bill Brown, Shop Floor Foreman; Orville Brown, Manufacturing Manager; Agnes Crabbes, Supervisor of Second Shift Maintenance; Debbie Fontaine, Human Resource Manager for Ocean Systems; Bob Giesey, Senior Test Supervisor; Ed Guseman, Manufacturing Supervisor; Don Rainey, Employee Relations; Dive Simes, Employee Relations; Nate Tatum, Senior Personnel Specialist; and Ken Miles, UAW 738 Representative.

From Essex Community College: Penny Jester, Office Associate; Elizabeth Mandlen, Academic Support Counselor/Instructor; Donna McKusick, Director of Developmental Education; and instructors Marla Jones, George Amoss, and Miriam Glister.

Special thanks to Catherine Griffiths who provided me with all program materials available, arranged the agenda for my visit, made herself available at all times, answered all my questions in a candid, straightforward manner, and provided me continuing support throughout the evaluation process.

ADDENDUM

INTERVIEW QUESTIONS AND RESPONSES

This addendum includes all of the information I uncovered through the interviews I conducted. I consider these results to be of major importance in the interview process. The questions asked were neutral in nature. They, and all of the responses are listed. The responses have not been edited in any way. They were written in the first person as the respondents answered the questions.

STUDENT INTERVIEWS

I conducted group interviews with students in six of the seven class sessions. Their responses are grouped together since there was no divergence of opinion by site or by class.

1. How did you first hear about this program?

- From my supervisor (2).
- From a fellow employee.
- I was laid off and was sent a brochure at home.
- Catherine and others from the college came to a meeting in the cafeteria.
- The foremen told the workers about it.
- Memos were sent out about times and dates.
- They wanted everybody to take the test.
- At a hands-on meeting, I saw a videotape.
- If you're interested, you can sign up and take a test and then talk to a counselor and then sign up for a particular class or program.
- There was a meeting downstairs on the floor.

2. What made you decide to sign up?

- It's a perfect opportunity!
- It's convenient here at work.
- I have a real desire to learn.
- I don't have a high school diploma; I put it off. I can go to school now; give it a shot.
- It's a good idea to get caught up on reading and brush up on math skills. A new job may call for a math test or a reading test.
- Catherine's talk gave us the lift we needed - it grabbed on to people.
- It's free - you can't ask for anything better than that.
- Why not take advantage to upgrade your learning?
- For the education to add on what I know and to help work here.
- The computer - you got to know how to use it for work. You have to get into the system.

- It was seeing people I recognized on the videotape.
- After the test, there were some things to brush up on.
- Self-improvement.
- It seemed like a good idea if the company was offering it.
- I'd like to go back to college and I need a brush up.

3. Would you have hesitated to sign up if the company had not provided you any paid release time?

- It wouldn't have made any difference (4).
- I'll be laid off this week.
- We would have come anyway (unanimous agreement).
- It's real convenient at the workplace. I wish there was much more of it.
- I would have come on my own.
- No problems.
- I've been doing it on my own for a year and a half. I've turned down jobs so I can continue with this program; I started after I was laid off.
- This is the first time they've offered this.
- They're doing us a favor on site here and we don't have to pay tuition.
- Maybe without the one hour pay it might have been a little tough, but after the first class you'd come on your own.

4. Do you think your job performance has improved any since taking this course, or not?

- Yes (all).
- I'm much more outgoing and assertive. I got up and talked at a meeting.
- I'm so glad we all participated. It really has helped everybody. Before, I always hesitated because it may be that I'm wrong.
- There are things that I can do that I couldn't before.
- I don't think that we've been in the class long enough but it will help. Down the road it will. I've seen guys who took the math courses and they work better now that they used to.

5. Is your attitude toward your job and the company better than it was before or not?

- It's the same (3).
- Better (5).
- I'm grateful for the opportunity.
- I feel better about myself personally (three others agreed).
- They're having a layoff but our attitude hasn't changed. We are furthering our education so we can get out in the work world if needed.
- I'm fifty-one and I've always wanted to get my diploma. The girls here are quite supportive. The other students and the teacher will help any time.

6. Do you believe that your skill levels have improved or not?

- Big time!
- Much better.
- Not as quick to doubt yourself. You have to do math to do your efficiency here. I can do that now.
- We have to figure hours on the job.

7. Now thinking about the instructional program - your teachers' effectiveness and what is being taught - please pick a number between five and one to rate your instruction. 5 means excellent, 4 means very good, 3 means average, 2 means below average, and 1 means poor. What number would you pick? Why did you pick that number?

- "5" (unanimous).
- She's very patient. She goes slow. She'll go back over work and make it more clear so you can understand it.
- I've given them the highest rating because they work with you all the time. All you have to do is ask if you have a problem and they help you.
- I learn a lot more than I did in high school.
- You can come up on your lunch time or anytime.
- We have a lot of choices on the days we work by ourselves - tapes, videos, computer, instruction, books, plus the teacher one-on-one.
- If it had been this good in high school, I probably wouldn't have dropped out.

8. How well do you personally like this program?

- Very much. I wish we could go on for another semester.
- I like it a good bit. I like it better than high school.
- I like it a lot. It's well worth the investment.
- It's pretty neat. It carries a college tone to it, not like it was in high school.
- A lot. I'd be disappointed if we didn't have one (class) after this. We want Liz back, too. I like the way she teaches and is very concerned.

9. Have you had any conflicts between your class and work schedules or not? If you have, what were they?

- No (all but one). It's very convenient.
- The supervisors are well aware of it and go along with it.
- I had one. We had PMT on Tuesday so my supervisor changed it so I can get to class.
- They let us come right up.

10. How likely would you be to recommend this program to someone else who might have needs similar to yours?

- o We do that all the time.
- o We highly recommend it.
- o I would, definitely. Like this skill right here (indicating typing), it upgrades your education; brings it up to date.
- o I'd recommend it highly (unanimous echoing comments of agreement).
- o I already have (6).

11. What suggestions do you have to make this program better?

- o More supplies - a stapler, a board eraser and a new board.
- o More time. Make it another year.
- o More school days.
- o More hours.
- o They need to continue it. You get started, then they cut it off half way.
- o More inside p.r. I've been here nine years. I knew there was education available. But I didn't know where to go or who to see.
- o We advertised in the union newspaper.
- o Bring it up at PMT meetings.
- o They do have communication bulletin boards. Notices should be on all of them.
- o Have more employees partake of it.
- o A little more time. (mean?) Class time. That would be a big plus, but with the layoffs there aren't as many people.

12. What comments would you like to make about this program?

- o It's been very good. All the teachers have been very helpful. Miriam has been supportive. When I've been down on myself, she gives you the encouragement.
- o Everything's fine.
- o I'm real grateful I can take the college entrance exam right here. If I had to go to a college, I'd be a nervous wreck just going through the door.
- o This is my third course. We keep Liz overtime.
- o I'm a strong supporter of education anywhere. You take care of the education problem, a lot of other problems will take care of themselves.
- o Allow the classes to continue on. It's a good class.
- o Good for people who haven't had a chance to get their diplomas. Without this opportunity, people would never dream of going back to school. Now they think about taking classes at a community college. It doesn't have to end here.

- You can help your kids with their homework - do that stuff yourself.

TEACHER INTERVIEWS

In addition to observing classes in session and examining class records, I interviewed four instructors on an individual basis. Here again, the responses are commingled since nothing is to gained from separate reporting.

1. What are your retention and absences procedures?

- I call in absences to Middle River.

2. Have you received the support you need or not?

- Sure, yes.
- It's very good.
- Yes, they are very good at that.
- Support is excellent. Catherine brought me a conference brochure. I speak to Catherine every day. I've requested several things and most of them are on order.

3. Who selected the instructional materials? How was it done? How would you rate them?

- Primarily, I developed them. Instructors have leeway in what they use. We've collected quite a number of resources.
- I design a lot of my own. The publisher materials are very good. We had a part in ordering them.
- I make up a lot of my own. I attend conferences and get sample books. I have a lot of freedom which I like.

4. How do you assess learner progress?

- We keep portfolios to measure progress in the writing process. Through writing I can see a lot of transfer of other skills. I'm with the higher level learners. They're pretty adept. When I was with the I-II Group, I would assess them and do a skills inventory at the end.

- I use CASAS, the Cambridge Locator and some commercial tests. I've been a reading specialist. I can listen to somebody read and know where they are. I have informal tests.

5. How do you feel about the procedures for instructor

evaluation? Are they fair or not?

- o They are fair and adequate.
- o The form was given out to us first to preview and question before we were evaluated. I don't have a problem with that.
- o It's fair.

6. How were the vocabulary lessons developed?

o I was responsible for that. Recently, they have been put on computer. They're designed for a technical environment with some more general application.

7. Would you accept a similar position in the future or not?

o Yes (All responses).

8. Describe the curriculum development process. How were you involved?

o I've been involved with the curriculum development. We wrote lessons which were collected weekly for Classes I and II. I helped to write objectives and in the development of the technical vocabulary. I made a series of lessons for general ideas of how to do it and for the other teachers to use.

o In between sessions, we have a week for curriculum development to suggest things and to make additions to curriculum that's already structured. I have material from Catherine. I might use some of mine. I know what my workers are working on. I can develop my own sometimes, based on their needs.

9. What, if anything, would you do differently next time?

o If I had a similar group, I'd go slower. In a short period of time, you're pressed to move on. They need more time.

o More planning time. (Why?) We get three hours a week for planning. One semester, I had seven students. I found myself spending two hours a night planning individual lessons. Now that I have three to five, it's okay. But take into consideration the size of the class.

o I would have all these computers networked. They can call up what they want. It's wonderful.

10. What recommendations would you have for anyone planning a similar type of program?

- o Approach people very positively about what they CAN do and not what their deficits are. They have things in their life experiences. Keep them open to learning. Show individual concern. If they don't come, call them. Care about the students as individuals and you won't have any trouble with retention. Make them feel important.

  Specifically, students like group discussion. Use peer groups. Slower students need discussion.

- o Visit the work site and see first hand what the workers do. Spend a lot of time in the shop before getting to the books and materials. See what the workers do first. That's the main one. One worker brings a lot of tools he uses to class. He has to read these very precise tools that can read the width of a piece of paper or a strand of hair. Now, we actually work with the tools and I feel myself making that workplace connection. If we want to include them in our world, I need to get into their world first. I say to my students, "Explain to me what you do exactly".

- o Make them feel comfortable about their profession. See the grueling errors and the stress and the errors that can occur.

- o Get on the phone if you don't understand a memo. The workplace is actually two workplaces. There is a chance for confusion. If you're not sure, get on the phone.

  Keep anecdotal records on students.

- o If I could recommend it, it would be to use a writing prompt. They choose their own from forty in a card box. It can also be used as a lesson later on. Their own needs assessment; test scores. Keep daily anecdotal records.

11. Do you have any other comments you would like to make?

- o I'm sorry it's ending. I hope we get the mini-mester. We help them and then we leave them. I wish we could continue to have something for them even once a week. We tell them, "Use it or lose it".

WORKING COMMITTEE INTERVIEWS

I conducted group interviews of both committees - one at the Middle River facility and the other at the Glen Burnie plant. "GB" indicates a Glen Burnie site response and "MR" the Middle River Committee.

1. What are your responsibilities as a committee?

MR -

o We provided a lot of support in going out on the floor getting people to participate. We did a lot of promotion in the beginning. We conducted briefings. We named the effort. We did troubleshooting.

o We had good labor relations. We worked with attendance and decided what to do about people who had been laid off.

o If we had a disgruntled employee, we would screen him out.

o We rounded up the strays. A few people dropped out and we would talk to them on the floor. Very few did not come back. We'd recommend they talk to Cathy. Then they'd usually come back to classes.

o The union helped to develop the video and promote it. We started by borrowing a video from a GM local. We publicize the program in the union paper. We talked about having second and third shift monitors, but we couldn't get anyone to volunteer. This Committee updates the union and deals with issues like confidentiality. Our weekly meetings became part of the monitoring.

We maintained daily contacts with the participants. The contractual agreement with the union was to pay for time away from the job. This speaks for management.

2. How are program policy decisions arrived at? What is the process and who is involved?

o Problems are solved right at this table. Job changes may require that the educational program know about it.

o We worked with Martin Marietta staff very closely so as to follow all company policies and procedures. It would have been great to have had an orientation period right at the beginning.

3. What effect has the company downsizing had on the program?

GB -

- We've had downsizing at a magnitude of 50%. Our initial target of enrolling 1600 employees had to be revised to 884. It was necessary for the company to streamline its budgets. This resulted in some changes in class locations. We've done very well in addressing this issue, especially given the mood of many of the employees who worry about continuing the downsizing process.

4. What are your individual reactions to having classes at this site?

GB -

- There's no better way to go.
- It's convenient. They wouldn't have taken a class elsewhere unless it was here. They don't have to disrupt their personal lives - it's right here.
- One told me, "I was able to use this right away on my job."
- They were so excited; they wanted to come in early to get extra time on the computer on the job. Some students come in early and stay late. One even bought her own computer.

MR -

- I think it's great from the union standpoint. It's one of the most positive - if not the most positive - union/management agreements. It shows that union and management can work together for the benefit of the employees. In the thirteen years I've been here, its been an "us against them" attitude. Now they're in a win-win situation. This has done a lot to dispel that us/them feeling.

- It's highly visible. They take reactions back on the floor and the word spreads.

5. What do you think have been the overall benefits, if any, of this program to Martin Marietta?

GB -

- The employees self-esteem has gotten higher. Their belief in the company is higher. This is a positive measure - a win-win situation for the employees.

o They weren't chastised. They were allowed to come into class. Here at Glen Burnie it used to be a two-edged sword. There was a we/they attitude. Glen Burnie has been part of Martin Marietta for four years. When there is a takeover, there is some animosity. The program overcame all that. The employee confidence level is up. I haven't had one complaint about confidentiality.

MR -

o Management agreed to extensive training with the machine shop staff. Four of the top five scores on a training test came from workers who were in this program.

o We've seen improvement from our students. In the electronic assembly area, you had to be ESD certified. It's a one hour course. People couldn't pass the test. That was a good indicator that they had learning needs. Some of our people couldn't pass the certification. Some of those participants passed certification. I'm gathering data and I'm seeing a big gain in qualification to be certified - to pass the test. Time spent on training has been reduced.

o Through the WSEP Program, they have the resources to get through training and their confidence as a learner is greatly improved. There is improvement on the job. We've seen productivity improve by 10% for WSEP participants. We look for defect rates to go down - things like that.

o As we reduced manpower, some had to do their own calculations. They fell short. Some enrolled in WSEP and all of those were certified. It enhances our PPT (Production Technology Training).

6. Have you been aware of any major conflicts between class and work schedules?

GB -

o Once in a great while there is a blitz at the end of the day. We encourage them to work. They sometimes go back to work after class to get their work done. We have strong support from upper management. That allowed the supervisors to release people. It's the employees choice to go to class or not.

MR -

o None to my knowledge. The college gives work to them to meet vacation schedules. The company allows people who are laid off to come in. We didn't turn anyone away who had been laid off and wanted to come in.

Managers and directors let supervisors know that workers have the right to participate.

- o We have people come in to the Working Committee to give us special information like awards and press conferences. People from both sites are involved. We went to supervisors meetings. Everyone knows of this effort.

7. How well do you think the participating employees like this program?

GB -

- o I think they love it. I went to the last classes. The enthusiasm and rapport with their teachers and each other was great. They were really excited. The enthusiasm was rolling over. I couldn't believe how excited they were. The GED people glow in the dark they are so proud of themselves! They run right up to you and say, "This is what I did. I couldn't have written these directions without this class."

8. From what you know, please rate the instructional program - that is the teachers' effectiveness, the resources available and what is being taught. Using a scale of five to one with 5 meaning excellent, 4 meaning above average, 3 being average, 2 being below average, and 1 meaning poor; which number would you pick? Why did you pick that number?

GB -

- o It's hard to do. We weren't participants. You have to be there.
- o Just on feedback, I'd say a "4". But you hear the squeaky wheel first. It was the layoffs and the child care that were the problems. It wasn't the program.
- o They were able to take the learning right back to the job. Move a lot quicker on the job; be more efficient.

MR -

- o I've never heard a negative response from anybody in the program. Everything has been positive. They all like Catherine and the teachers. If we had a concern about a student problem, the appropriate person is contacted - the union, the counselor, Catherine or whoever.

9. Looking back at this program over time, what, if anything, should have been done differently?

GB -

- Stop the layoffs.

- We were on a short fuse to put it together. We had to move very quickly. We had to expedite the process. We were under the gun from the beginning. Two sites were involved. Committees had to be formed. We started from ground zero in Glen Burnie. We just didn't have enough up front time. Education has to learn the dynamics of the company. There needs to be more development time for the partnership to be established. But the real point is, we did it!

MR -

- Nothing from the union standpoint. Everything worked perfectly from the beginning. I wouldn't have changed anything.

- I probably would have written in Nate and Catherine as Co-directors.

- Coordinator: It was hard for me to be the coordinator. I was reporting to Nate. There were some gray areas.

- Company Co-Director (who attended the federal grant conference): The company partner should be asked to attend the national federal grant conference. Make the manufacturing partner as involved as education. The budget goes to academia. Manufacturing has its own objectives. Make the partners equal. When the grant was issued, the money went to Essex. We put in money and received a service. I felt it was, "We're the applicants; you're not". The manufacturer does not have as much influence.

  Everybody should participate in the Dissemination Report. We may never see some of the information. It just APPEARS that the partners are equal.

10. What other comments would you like to make?

GB -

- We recouped from a negative image that the Baltimore Sun put out. They referred to this program as a "study hall" and a "literacy program". People didn't want to be associated with a literacy program. We overcame that negative press.

- o The Problem-Solving Class was a stress reliever for them away from the responsibilities of work and home. It gave them stress relief.

- o Our program was really catching it because of downsizing.

SHOP FLOOR FOREMAN & SUPERVISOR OF SECOND SHIFT MAINTENANCE INTERVIEWS

These interviews provide a program perspective from the bosses of enrollees. I asked about their views concerning job performance changes, basic skills improvement, the instructional program, schedule conflicts and personal reactions.

Job performances changes:

- o I noticed a considerable change in their personality. (Mean?) Work habits. (Explain) They had a more positive attitude toward the job. They were enthused about coming to class. But one was very concerned about getting his job done also. He was willing to come back after class to get the job done.

  Rob is no longer here. Fred does apply the skills he's learned to the job. He's more inclined to think things through and work them out instead of just going for help. With both of them it has built their self-confidence.

- o Yes. I have the janitors, one machine repairman and one pipefitter/plumber. The quality of their job performance has improved. Most had a good attitude to start with. The job performance was the big thing. They were very enthusiastic about the WSEP and they brought that to the workplace. They also tried to interest their coworkers in bettering themselves through this program.

Basic skills improvement?

- o Computerwise, yes. That skill has improved. Time cards. We have a 90% improvement in filling out time cards. I didn't have to go through a lot of instruction. It happened because of the program.

Rating of instructional program:

- o I didn't come up to the class. Both of the employees were very satisfied. They both thought the world of Catherine. She came down to the floor a couple of times on tours. She always spoke to them. Catherine helped them break through quite a few barriers.

RESPONSES FROM A CO-DIRECTOR JOINT INTERVIEW

Emphasize our successes. We had a short term notification of the grant award. Our target group was cut in half by the layoffs. We have two distinct groups working together. We are altering the course of the company. Computers became a vital resource to the company. What do you do when you're downsizing Martin?

Anything we needed from upper management we have gotten - computers, release time, facilities.

The Advisory Committee gave us an immediate channel to the higher-ups. You were talking to the decision-makers. Upper management blessed this program. It came from the top down and they back it, not just give it lip service. They tell us what they need. There is a definite return on investment.

The instructors care. They want to know where the people are.

We represent three different departments at the college - English, Reading and Math. These college resources have been used in the program.

VII. Summative Evaluation of Program

The Workplace Skills Enhancement Program used many strategies to collect data on the program's success. Each session, the program parameters detailed in the Federal Report, along with registration and retention information was entered onto the database. This database allowed the Essex staff to collect CASAS assessment information on learners at the end of each semester. A pre and post test self-esteem survey was administered for three semesters to determine how the workers perceived the instruction and its effect on their work lives as well as their personal lives. Instructors also kept Anecdotal Records on those learners whose progress or whose life situation might shed light on the adult learner in a workplace literacy program. The company distributed a survey to supervisors of participants and used existing data collection systems to track work performance of a number of participants. The results of all of these procedures are contained in this section.

Participation Objectives:

1.0 Literacy Testing will be administered to 700 adult workers to determine their strengths and weakness by February 1991.

Outcome: Literacy tests were administered to 494 adult workers by August, 1992. We were not able to meet this goal because of Martin Marietta's downsizing, which reduced our pool by 50%.

2.0 A minimum of 300 adult workers (with 400 registrations) will participate in the Workplace Literacy Program, as determined by individual testing, by May 1992.

Outcome: 265 adult workers (with 296 registrations) participated in the Workplace Skills Enhancement Program, as determined by individual testing, by August 1992. Again, the downsizing of the company prevented us from fully meeting our goal, but our numbers proportionally exceeded the 50% downsizing.

1.2 The program will strive for a retention rate of 70% of registrants to complete each session.

Outcome: 90% of the registrants completed each session.

Academic Achievement Goals

(note: Because we changed our assessment instrument from the ABLE to the CASAS, we received approval to convert post test gains from "years" to CASAS test point gains.)

2.0 A minimum of 90% of all students completing the Practical Work Applications course will have made post test gains of two years or more, by May 1992.

Outcome: Because students in the Practical Work Applications course scored to high on the pre CASAS to show significant post test gains evaluated their progress through more qualitative means including teacher made tests and the completion of a "job book".

2.1 **A minimum of 70% of all students enrolled in the Practical Work Applications course will have completed the course by May 1992.**

Outcome: 94% of all students enrolled in the Practical Work Applications course completed it by August 1992.

2.2 **A minimum of 70% of all students enrolled in the Workplace Literacy I course will have completed the course by May, 1992.**

Outcome: 100% of all students enrolled in the Workplace Literacy I course completed it by August 1992.

2.3 **A minimum of 90% of those completing Workplace Literacy I will have made post test gains by one year or more by May, 1992.**

Outcome: 90% of those completing Workplace Literacy I scored an average 7 point increase on their CASAS post test in Reading and an average 12 point increase on their CASAS post test in Math by August 1992.

2.4 **A minimum of 70 % of all students enrolled in the Workplace Literacy II will have completed the course by May, 1992.**

Outcome: 79% of those enrolled in Workplace Literacy II completed it by August, 1992.

2.5 **A minimum of 90% of all students completing the Workplace Literacy II course will have made post-test gains of 1.5 years or more, by May 1992.**

Outcome: 90% of all students completing Workplace Literacy II scored an average 9 point increase on their CASAS post test in Reading and an average 8 point increase on their CASAS post test in Math by August 1992.

2.6 **A minimum of 70% of all students enrolled in G.E.D. Preparation will have completed the course by May 1992.**

Outcome: 92% of all students enrolled in G.E.D. preparation completed the course by August 1992.

2.7 **A minimum of 90% of those taking the G.E.D. will pass by May 1992.**

Outcome: 93%of those students taking the G.E.D. passed it by May of 1992. (Figure will be updated in October as summer students take the GED test.)

WORKPLACE SKILLS ENHANCEMENT PROGRAM

National Workplace Literacy Program Information Form

PART 1: Program Parameters

1. Target no. to be served: 400

2. No. served at each site to date: August 1991
Glen Burnie Site - 41 *Middle River Site* - 41

3. Total no. served: 82 (Total reflects Summer '91 session only)

4. Fed. funds obligated: $69.502

5. Matching funds/in-kind: $150.784

6. Value release time: 2.132 hrs. (Based on 82 students x 26 hrs.)

7. No. participating in programs offered: 82
Basic Skills: 36 GED: 7 ESL: 1 Higher Level Skills: 38

8. Contact hours provided: 52 (Based on two hours per session/ 26 sessions per semester)

9. No. participants completing programs offered:
Basic Skills: 31 GED: 7 ESL: 1 Higher Level Skills: 38

PART 2: Participation Data

1. Mean age participants: 44

2. Sex: No. males - 40 No. females - 42

3. Race/Ethnicity: No. who are:
White - 51
Black - 27
Hispanic - 2
American Indian - 2
Alaska Native - N/A
Asian/Pacific Island - N/A

4. No. single heads of household: 56

5. No. limited English proficient: 1

6.

Outcomes	No. Participants
a. Tested higher on basic skills	22
b. Improved communication skills	*Martin Marietta will make this data avail. in the dissemination report.*
c. Increased productivity	
d. Improved attendance at work	
e. Increased self-esteem	
f. Received their G.E.D.	4

7.

Years with the company	No. Participants
0-5 years	7
6-10 years	37
11-15 years	29
16-over	9

WORKPLACE SKILLS ENHANCEMENT PROGRAM

National Workplace Literacy Program Information Form

PART 1: Program Parameters

1. Target no. to be served: 400

2. No. served at each site to date: December 1991
Glen Burnie Site - 28 *Middle River Site* - 40

3. Total no. served: 68 (Total reflects Fall '91 session only)

4. Fed. funds obligated: $69,502

5. Matching funds/in-kind: $150,784

6. Value release time: 1,632 hrs. (Based on 68 students x 24 hrs.)

7. No. participating in programs offered: 68
Basic Skills: 23 GED: 6 ESL: 0 Higher Level Skills: 39

8. Contact hours provided: 48 (Based on two hours per session/ 24 sessions per semester)

9. No. participants completing programs offered:
Basic Skills: 21 GED: 6 ESL: 0 Higher Level Skills: 38

PART 2: Participation Data

1. Mean age participants: 35

2. Sex: No. males - 41 No. females - 27

3. Race/Ethnicity: No. who are:
White - 51
Black - 17
Hispanic - 0
American Indian - 0
Alaska Native - 0
Asian/Pacific Island - 0

4. No. single heads of household: 54

5. No. limited English proficient: 0

6.

Outcomes	No. Participants
a. Tested higher on basic skills	10
b. Improved communication skills	37
c. Increased productivity	N/A
d. Improved attendance at work	N/A
e. Increased self-esteem	42
f. Received their G.E.D.	5
g. Increased higher level skills	40

7.

Years with the company	No. Participants
0-5 years	7
6-10 years	20
11-15 years	36
16-over	5

WORKPLACE SKILLS ENHANCEMENT PROGRAM

National Workplace Literacy Program Information Form

PART 1: Program Parameters

1. Target no. to be served: 400

2. No. served at each site to date: April 6, 1992
Glen Burnie Site - 15 *Middle River Site* - 37

3. Total no. served: 52 (Total reflects Spring '92 session only)

4. Fed. funds obligated: $69,502

5. Matching funds/in-kind: $150,784 (approximation)

6. Value release time: 1,248 hrs. (Based on 52 students x 24 hrs.)

7. No. participating in programs offered: 52
Basic Skills: 10 GED: 5 ESL: 0 Higher Level Skills: 37

8. Contact hours provided: 48 (Based on two hours per session/ 24 sessions per semester)

9. No. participants completing programs offered: 39
Basic Skills: 8 GED: 3 ESL: 0 Higher Level Skills: 28

PART 2: Participation Data

1. Mean age participants: 35

2. Sex: No. males - 32 No. females - 20

3. Race/Ethnicity: No. who are:
White - 39
Black - 12
Hispanic - 1
American Indian - 0
Alaska Native - 0
Asian/Pacific Island - 0

4. No. single heads of household: 41

5. No. limited English proficient: 0

6\.

Outcomes	No. Participants
a. Tested higher on basic skills	7
b. Improved communication skills	25
c. Increased productivity	N/A
d. Improved attendance at work	N/A
e. Increased self-esteem	31
f. Received their G.E.D.	2
g. Increased higher level skills	27

7\.

Years with the company	No. Participants
0-5 years	7
6-10 years	18
11-15 years	25
16-over	2

WORKPLACE SKILLS ENHANCEMENT PROGRAM

National Workplace Literacy Program Information Form

PART 1: Program Parameters

1. Target no. to be served: 400

2. No. served at each site to date: June, 1992
Glen Burnie Site - 26 *Middle River Site* - 33

3. Total no. served: 59 (Total reflects Summer '92 session only)

4. Fed. funds obligated: $69,502

5. Matching funds/in-kind: $150,784 (approximation)

6. Value release time: 1,416 hrs. (Based on 61 students x 24 hrs.)

7. No. participating in programs offered: 59
Basic Skills: 4 GED: 10 ESL: 1 Higher Level Skills: 44

8. Contact hours provided: 48 (Based on two hours per session/ 24 sessions per semester)

9. No. participants completing programs offered: 52
Basic Skills: 4 GED: 9 ESL: 1 Higher Level Skills: 38

PART 2: Participation Data

1. Mean age participants: 42

2. Sex: No. males - 29 No. females - 30

3. Race/Ethnicity: No. who are:

White - 41	American Indian - 0
Black - 14	Alaska Native - 0
Hispanic - 0	Asian/Pacific Island - 1

4. No. single heads of household: 41

5. No. limited English proficient: 1

6.

Outcomes	No. Participants
a. Tested higher on basic skills	2
b. Improved communication skills	28
c. Increased productivity	N/A
d. Improved attendance at work	N/A
e. Increased self-esteem	30
f. Received their G.E.D.	0
g. Increased higher level skills	28

7.

Years with the company	No. Participants
0-5 years	3
6-10 years	17
11-15 years	29
16-over	8

WORKPLACE SKILLS ENHANCEMENT PROGRAM

National Workplace Literacy Program Information Form

PART 1: Program Parameters

1. Target no. to be served: 400

2. No. served at each site to date: July 1992
Glen Burnie Site - 127 *Middle River Site* - 168

3. Total no. served this session: 34 (*July minimester*)

4. Value release time: 1632 hrs. (Based on 34 students x 48 hrs.)

5. No. participating in programs offered: 34
Basic Skills: 4 GED: 5 ESL: 0 Higher Level Skills: 25

6. Contact hours provided: 72 (Based on three hours per session/ 24 sessions per semester)

7. No. participants completing programs offered: 32
Basic Skills: 4 GED: 5 ESL: 0 Higher Level Skills: 23

PART 2: Participation Data

1. Mean age participants: 43

2. Sex: No. males - 14 No. females - 20

3. Race/Ethnicity: No. who are:
White - 27
Black - 5
Hispanic - 0
American Indian - 0
Alaska Native - 0
Asian/Pacific Island - 0

4. No. single heads of household: 19

5. No. limited English proficient: 0

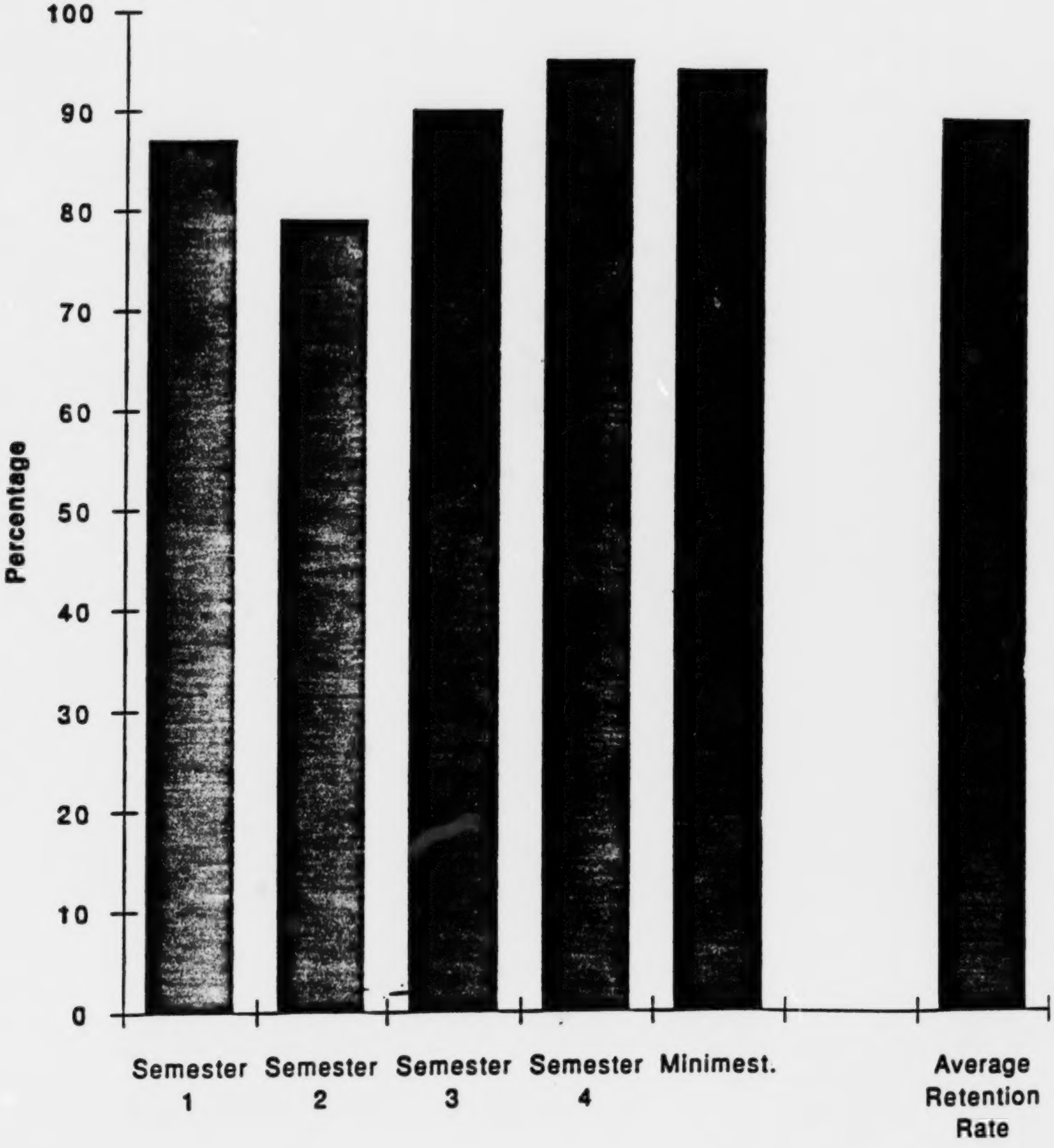
6.

Outcomes	No. Participants
a. Tested higher on basic skills	9
b. Improved communication skills	N/A
c. Increased productivity	N/A
d. Improved attendance at work	N/A
e. Increased self-esteem	N/A
f. Received their G.E.D.	1
g. Increased higher level skills	19

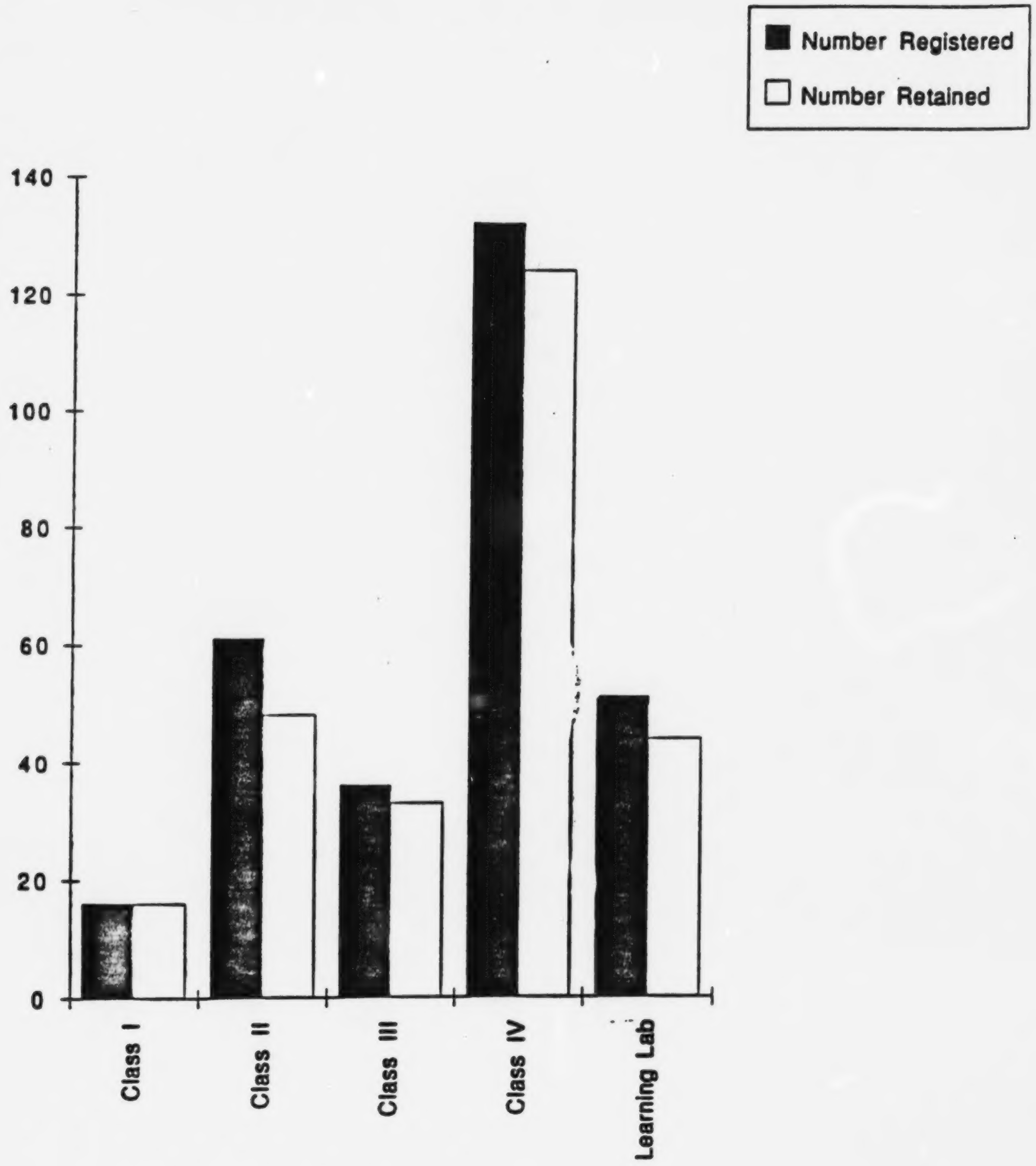
7.

Years with the company	No. Participants
0-5 years	3
6-10 years	9
11-15 years	14
16-over	5

Percentage of Retention for All Classes Combined : All Semesters



				Retention Report Totals				
			Number Registered	Number Retained	Retention Percentage			
		Class I	16	16	100%			
		Class II	61	48	79%			
		Class III	36	33	92%			
		Class IV	132	124	94%			
		Learning Lab	51	44	86%			



Registration and Retention Per Class

WORKPLACE SKILLS ENHANCEMENT PROGRAM

SUMMARY OF STUDENT PROGRESS DOCUMENTED THROUGH CHANGE IN LEVEL ACCORDING TO CASAS TEST RESULTS FOR SEMESTERS I, II, III, AND IV

Definition of the CASAS Levels:

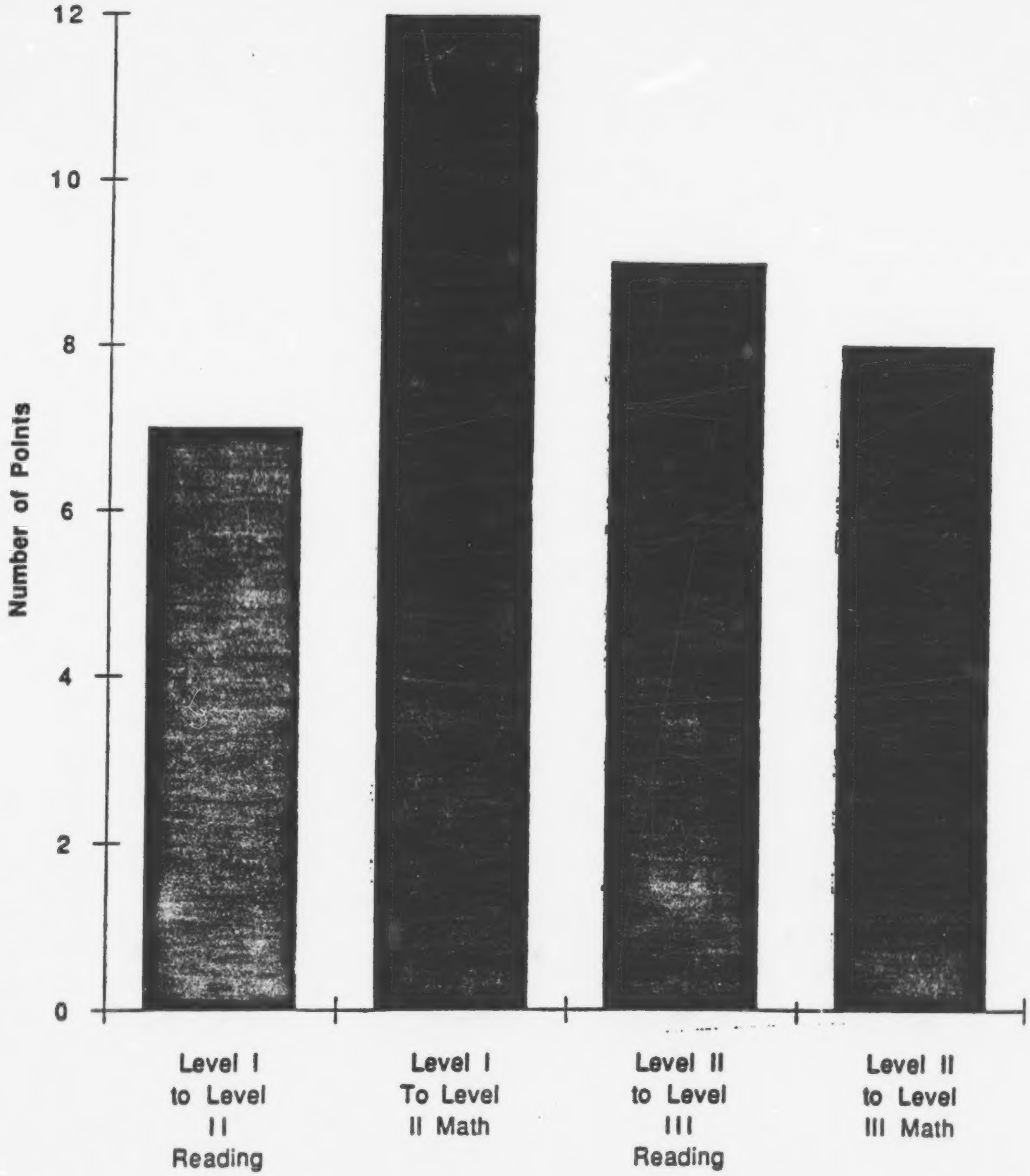
Level I	200 - 220 CASAS Scale Score	=	grades 0 to 4
Level II	220 - 230 CASAS Scale Score	=	grades 5 to 8
Level III	231^{+} CASAS Scale Score	=	grades 9 to 12

Of the students enrolled in the Basic Skills classes:

- **9 out of 16** students progressed from Level I to Level II in reading and math (56%)
- **38 out of 48** students progressed from Level II to Level III in reading and math (79%)
- **The average point increases were :**

Level I to Level II Reading : 7 points
Level I to Level II Math : 12 points
Level II to Level III Reading : 9 points
Level II to Level III Math : 8 points

Average Point Increase



GED RECIPIENTS

Twenty-six employees participated in the GED classes and thirteen received their diplomas. Ten test-takers passed some sections of the test and are waiting to retake it in October or December of 1992. (They have a three-week waiting period for test results.) Three learners were referred to the External Diploma Program of Baltimore County Adult Education, because of learning disabilities or test-anxiety. Three learners stated that they would put off taking their GED test due to life and work pressures or motivation factors.

Other Academic Achievement Outcomes

SELF-ESTEEM SURVEY

A pre and post test on self-esteem was administered to participants for three of four semesters. Neither the first semester nor the minimester allowed for a self-esteem inventory, because of time constraints.

The data in both chart and graph form shows that self-esteem and confidence is enhanced by workplace education. Evidence points to increased confidence in a worker's ability to use a computer, and this will positively impact the workplace as new computer programs and systems are used to track productivity and production quality.

ANECDOTAL OUTCOMES

Instructors were required periodically to write out anecdotal reports of progress they observed in their students. These accounts, which qualitatively demonstrate the effectiveness of the program, are found in at the end of this section.

Workplace Productivity Objectives

3.0 There will be a 10% increase in job productivity among participating employees by May, 1992 (measure by a decrease in product defects).

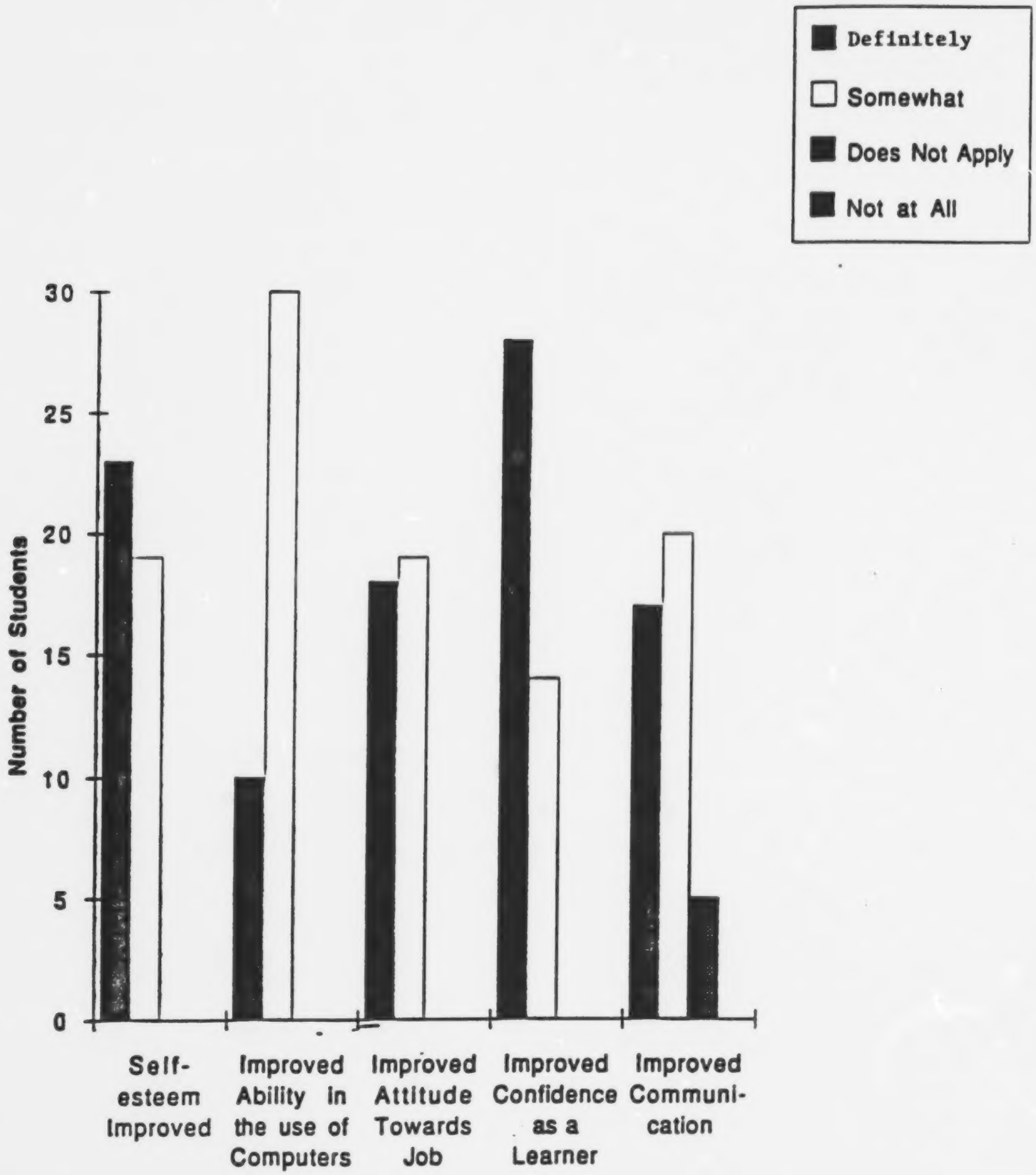
Outcome: Assessment of productivity gains was studied by a Data Tracking Subcommittee consisting of manufacturing and quality management specialists who met weekly to determine how best to collect accurate data on assembly workers called "touch" labor. The committee decided early on that it was too difficult to collect accurate defect and rework data; therefore, they restricted there study to productivity gains. Productivity was studied by tracking time spent on the job compared to the time allotted to complete the job. Production performance data was collected when the worker clocked on and off a production job. Martin Marietta's computer based tracking system collected this

	FALL 1991 (67 STUDENTS COMPLETED THIS SESSION;42 TOOK THE SURVEY)				Spring 1992 (41 STUDENTS COMPLETED THIS SESSION;31 TOOK THE SURVEY)			
Self-Assessment Questions	**Definitely**	**Somewhat**	**N/A**	**Not At All**	**Definitely**	**Somewhat**	**N/A**	**Not At All**
Self-esteem improved	23 (55%)	19 (45%)	0	0	24 (77%)	7 (23%)	0	0
Improved ability in the use of computers	10 (25%)	30 (75%)	0	0	13 (42%)	14 (45%)	3 (10%)	1 (3%)
Improved attitude towards job	18 (49%)	19 (51%)	0	0	20 (65%)	10 (32%)	0	1 (3%)
Improved confidence as a worker	n/a	n/a	n/a	n/a	21 (68%)	10 (32%)	0	0
Improved confidence as a learner	28 (67%)	14 (33%)	0	0	24 (77%)	7 (23%)	0	0
Improved communication with supervisor & coworke	17 (40%)	20 (48%)	5 (12%)	0	14 (45%)	11 (35%)	6 (19%)	0

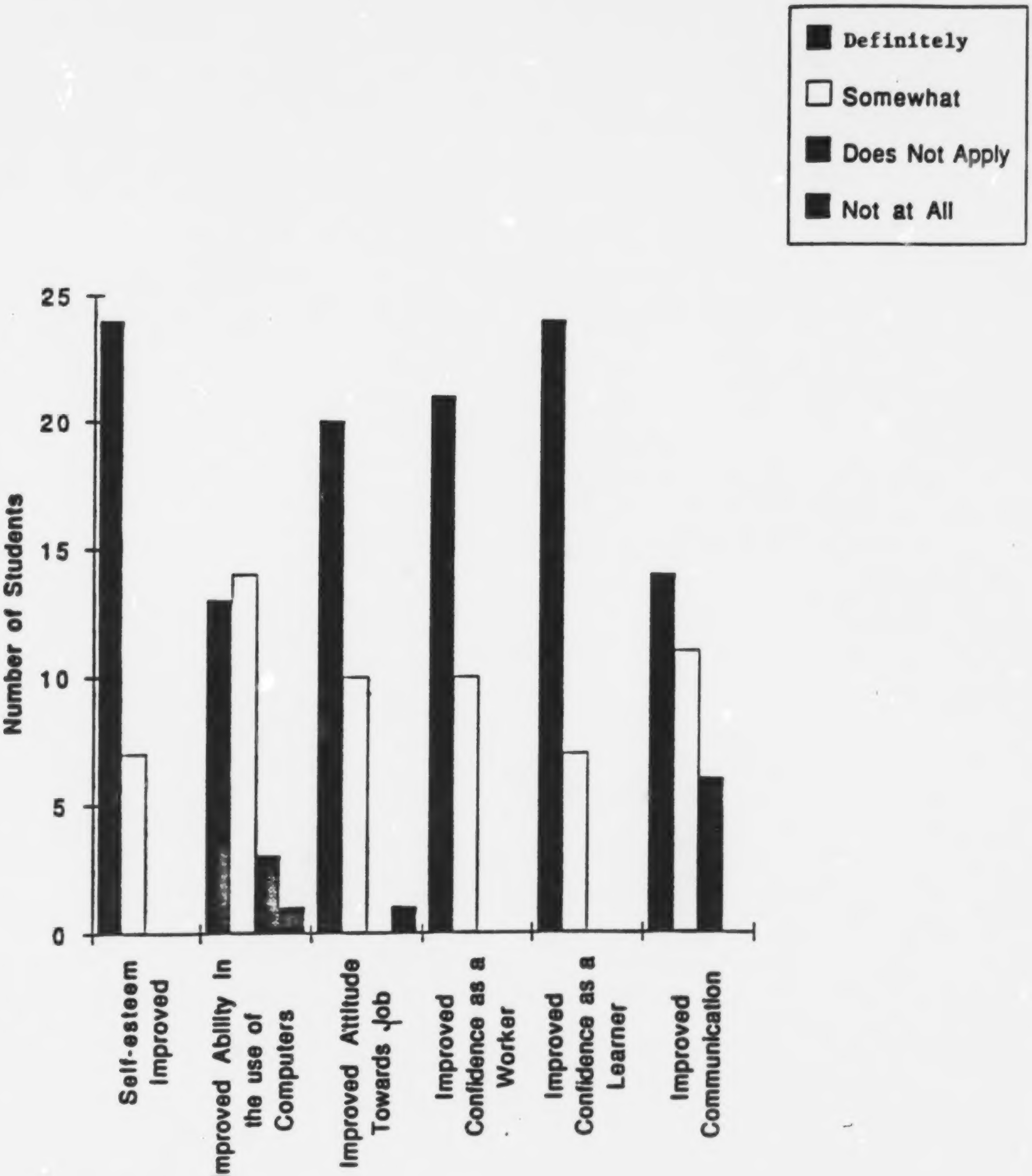
	SUMMER 1992 (52 STUDENTS COMPLETED THIS SESSION;31 TOOK THE SURVEY)			
Self-esteem improved	24 (77%)	6 (19%)	0	1 (3%)
Improved ability in the use of computers	12 (39%)	16 (52%)	2 (6%)	1 (3%)
Improved attitude towards job	18 (58%)	11 (35%)	0	2 (6%)
Improved confidence as a worker	18 (58%)	11 (35%)	0	2 (6%)
Improved confidence as a learner	22 (68%)	8 (29%)	0	1 (3%)
Improved communication with supervisor & coworke	18 (58%)	10 (32%)	0	3 (9%)

SELF ESTEEM SURVEY OUTCOMES

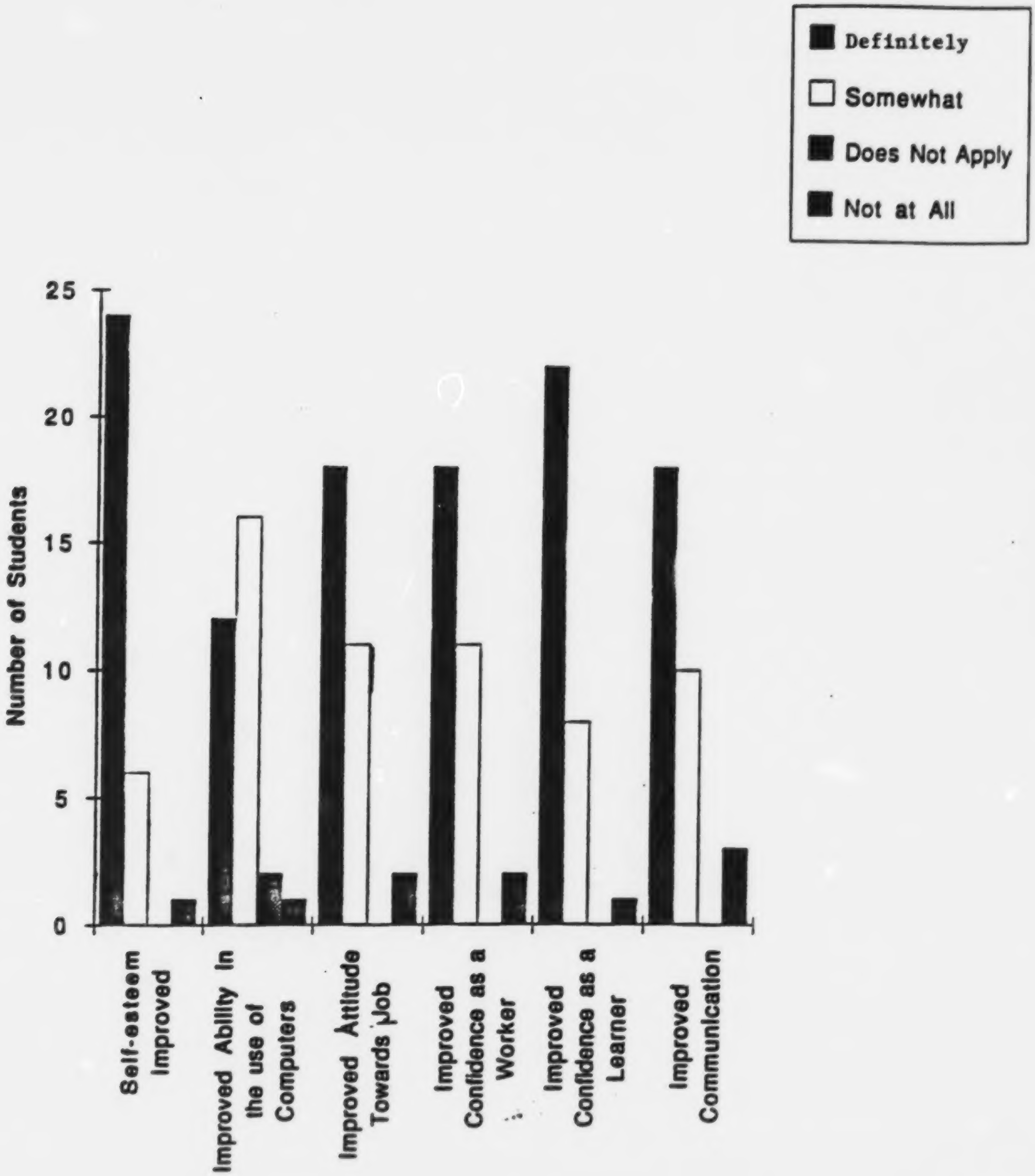
Self-Esteem Survey Results : Fall 1991



Self-Esteem Survey Results : Spring 1992



Self-Esteem Survey Results : Summer 1992



data and sorted it according to department, work center, program, and employee identification number. Of the 161 employees attending the classes, 71 were "touch" labor or assembly workers. Of the 71 employees, 14 were selected for performance measurement, because their workcenters and supervisors had only one or no changes. Due to the 50% reduction in the workforce, the remaining 57 were transferred to many different workcenters and positive changes could not be tracked due to learning time required to adjust to a new job and a new supervisor. Of the 14 workers selected for their production continuity, noticeable increases in productivity could be validated by the line graphs provided by the company's accurate data tracking system. Performance of these workers can be clustered into five groups.

PERFORMANCE ANALYSIS FOR GROUP A (Charts 1-5)

Increased their productivity by an average of 50% during and after program participation

PERFORMANCE ANALYSIS FOR GROUP B (Charts 6-9)

Increased performance peaks ranging from 5% to 110% while enrolled in classes

PERFORMANCE ANALYSIS FOR GROUP C (Charts 10-11)

Showed performance gains at the beginning of class but dropped in performance near the end of class participation which shows that performance balanced out over the participation period

PERFORMANCE ANALYSIS FOR GROUP D (Charts 12-14)

Showed a loss of productivity while enrolled in the class, however, this was a result of work flow slowdown as a contract ended

PERFORMANCE ANALYSIS FOR GROUP E (Chart 15)

Showed a collective performance peak of 70% during class participation

3.1 Participating employees will require 15% less time in mechanical skill training sessions, thereby increasing the amount of time actually spent on the job and improving productivity, by May 1992.

Outcome: Although Martin Marietta has not been able to measure this objective since not all participants were enrolled in or required to enroll in mechanical skill training sessions, much anecdotal evidence exists to prove that training was made more efficient by the Workplce Skills Enhancement Program. For example, Four WSEP learners enrolled in the trigonometry class required for machinist and Computer Numerical Control operations. These four passed the test with an 80% or better and scored on an average of 2% higher than the group average. One of the participants who began the WSEP classes in the lowest level class scored 100% on the test. Previously this worker could

Performance Analysis

Workplace Skills Enhancement Program

Employee - 17936

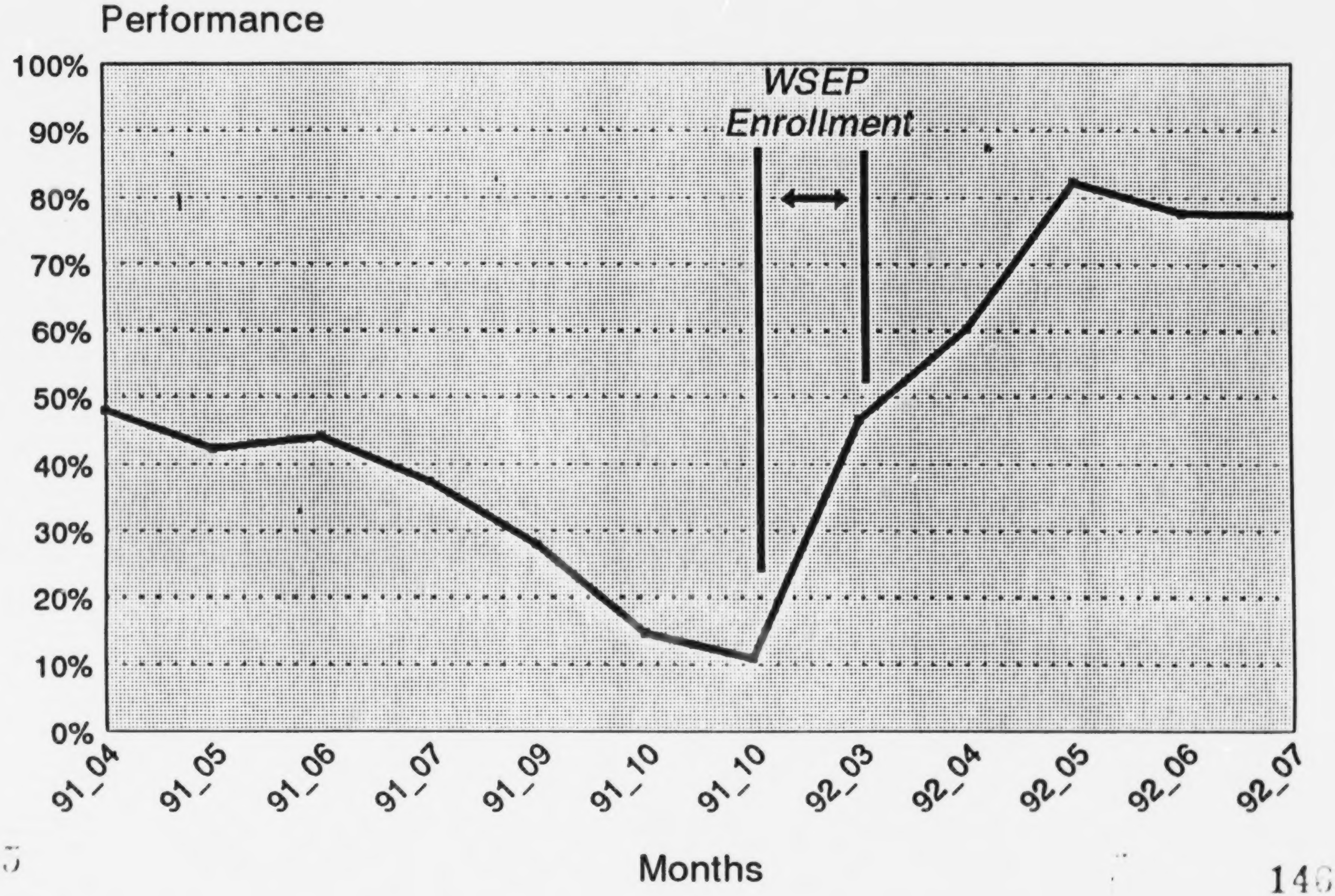
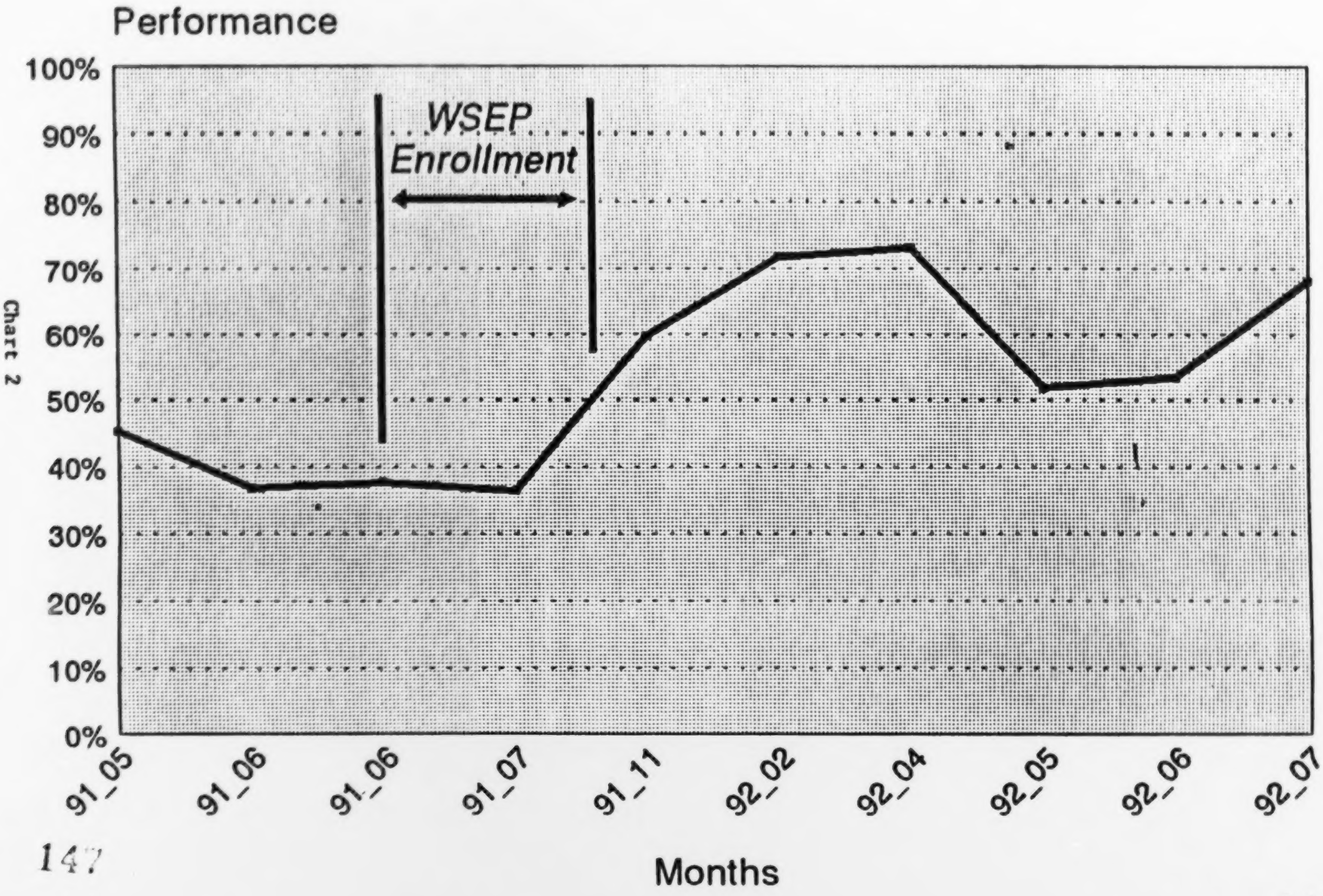


Chart 1

Performance Analysis

Workplace Skills Enhancement Program

Employee - 17924

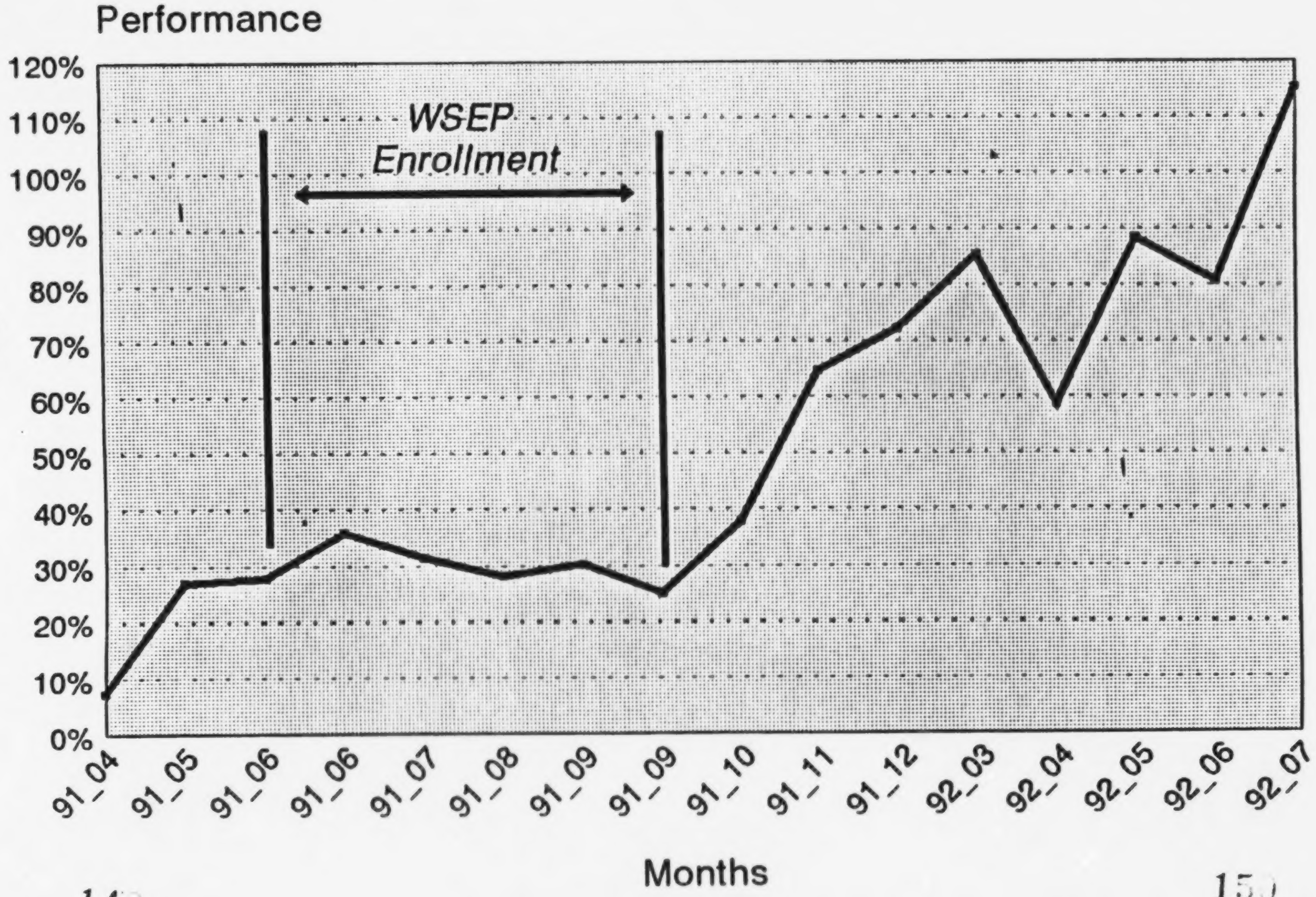


Performance Analysis

Workplace Skills Enhancement Program

Employee - 13202

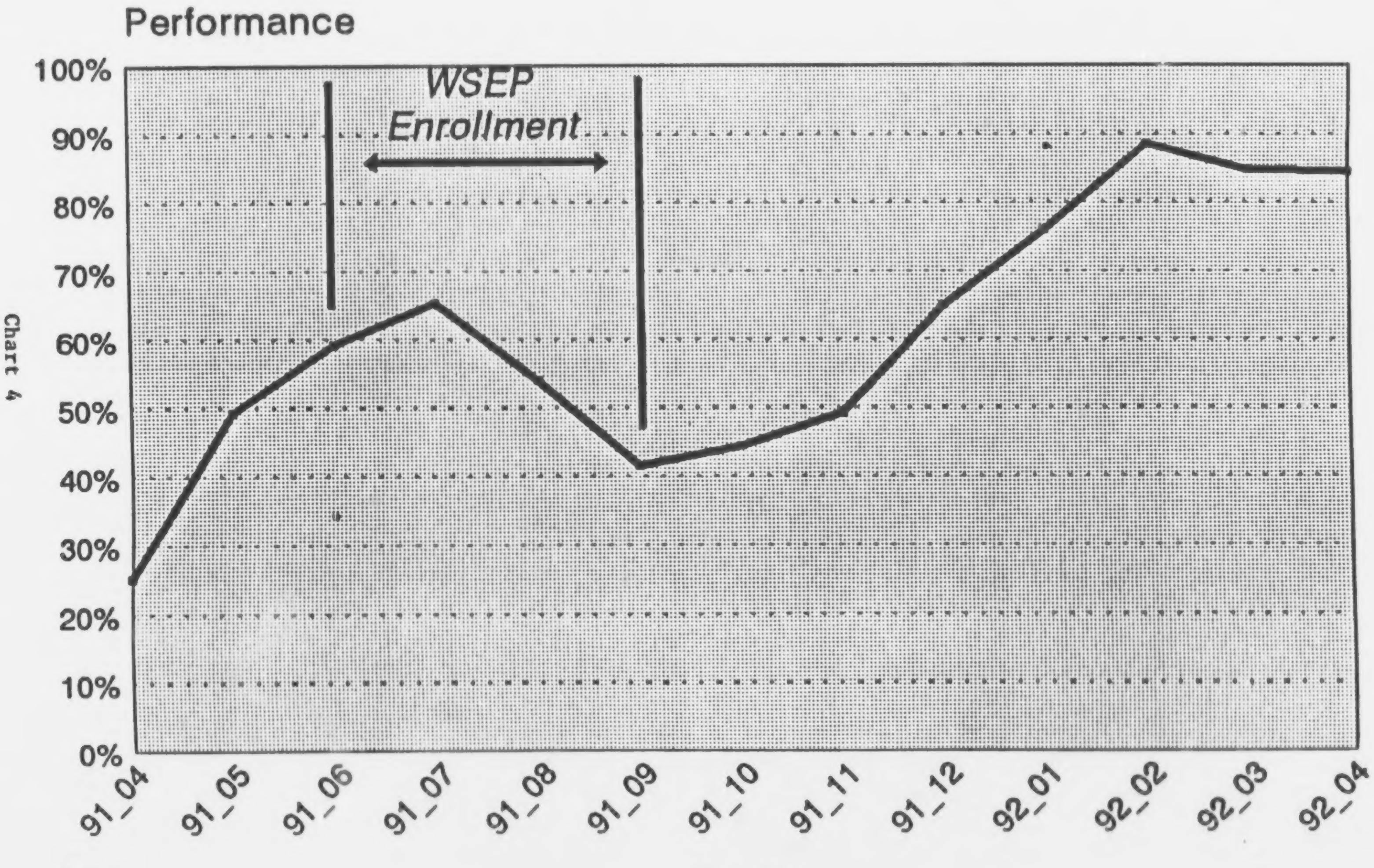
Chart 3



Performance Analysis

Workplace Skills Enhancement Program

Employee - 12417



Performance Analysis

Workplace Skills Enhancement Program

Employee - 12038

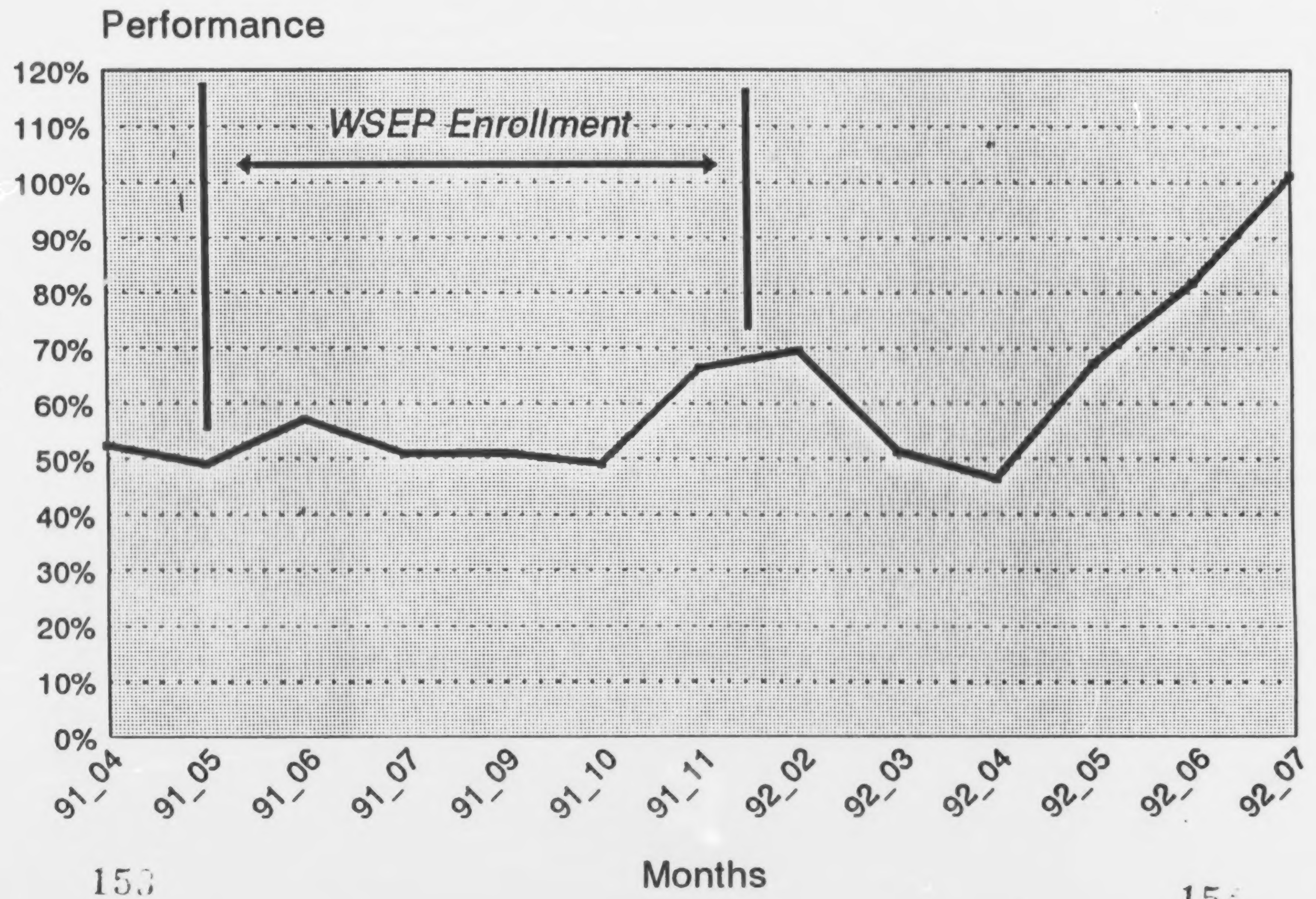


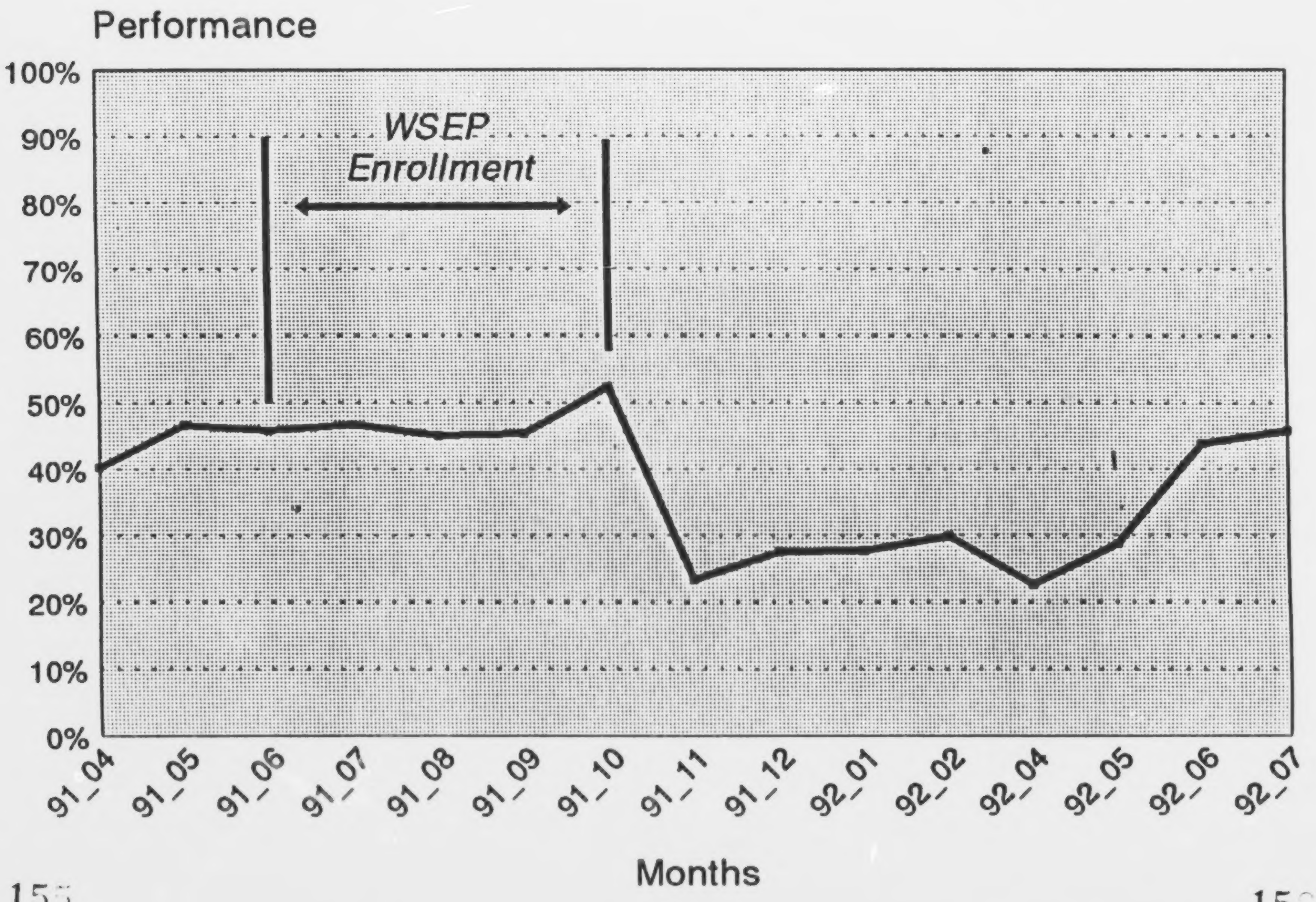
Chart 5

Performance Analysis

Workplace Skills Enhancement Program

Employee - 11725

Chart 6



Performance Analysis

Workplace Skills Enhancement Program

Employee - 12832

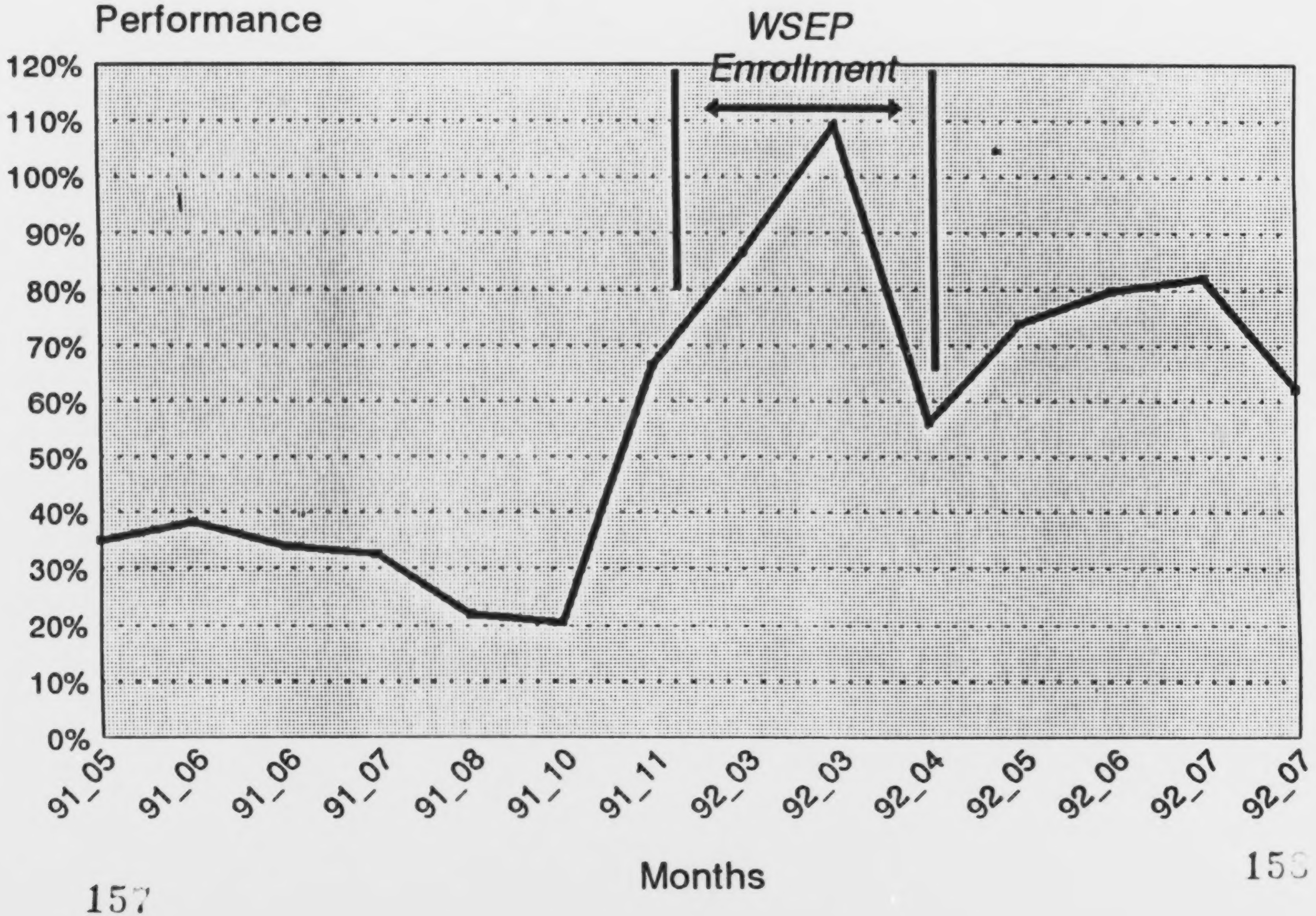


Chart 7

Performance Analysis

Workplace Skills Enhancement Program

Employee - 12009

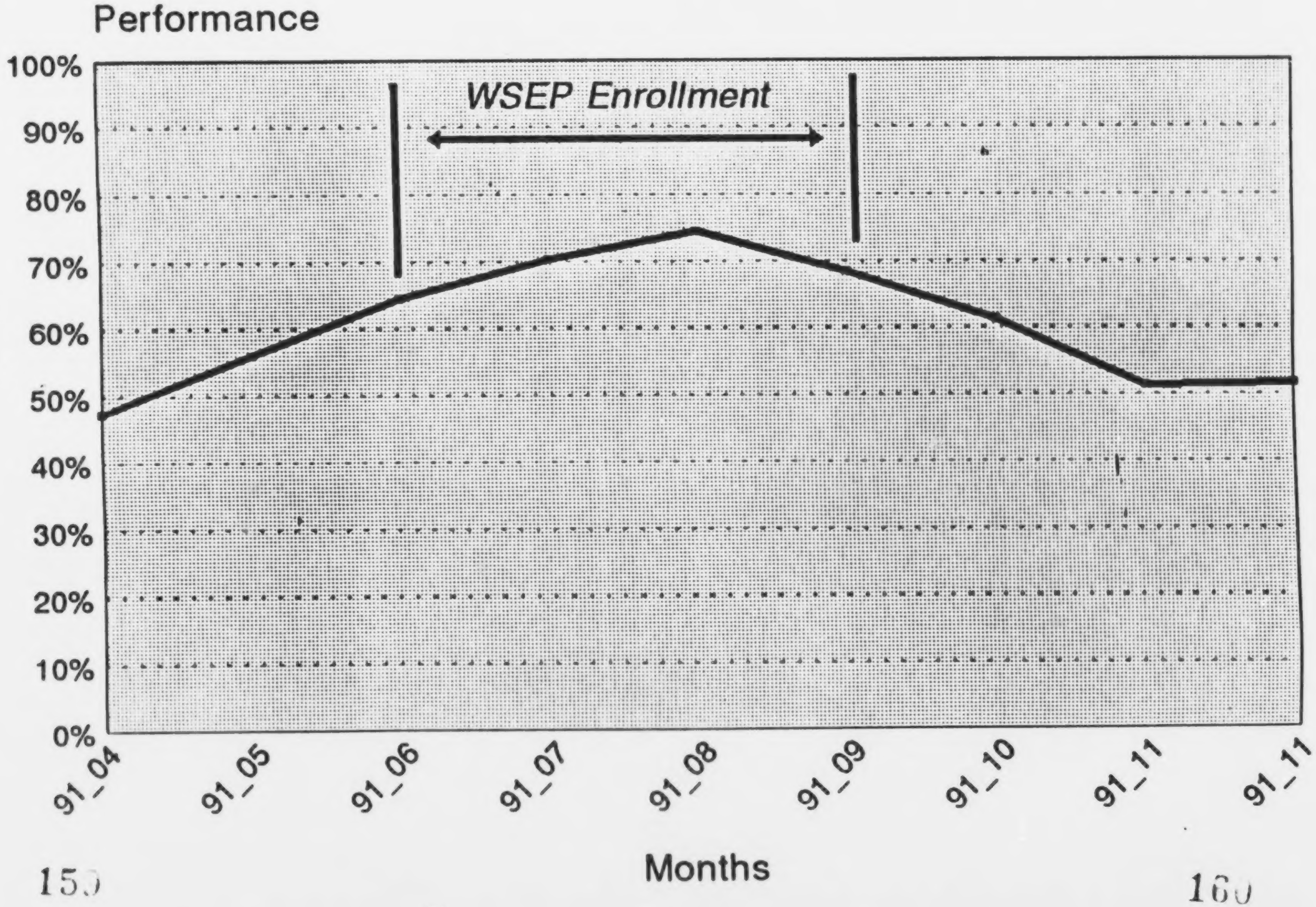


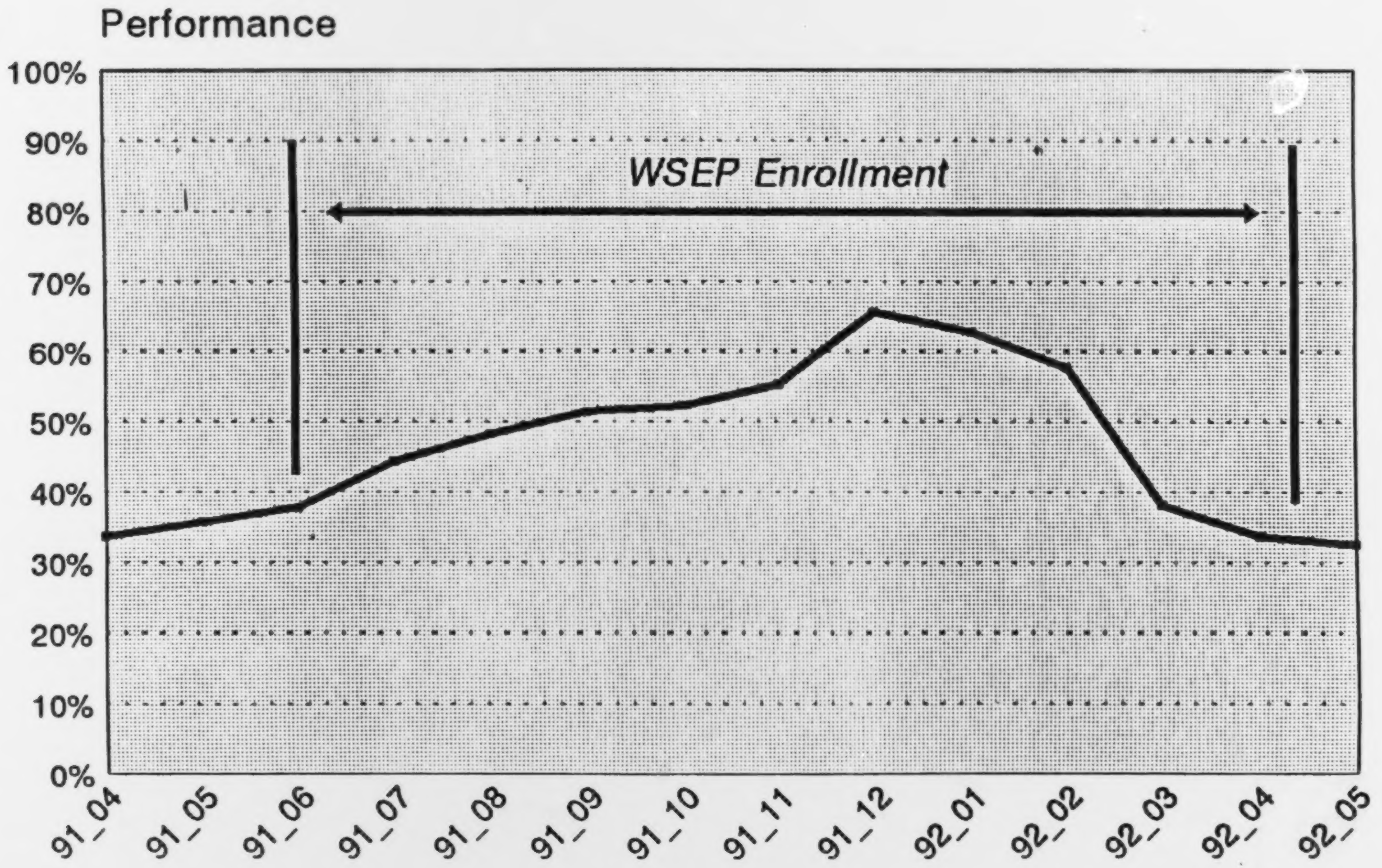
Chart 8

Performance Analysis

Workplace Skills Enhancement Program

Employee - 12152

Chart 9



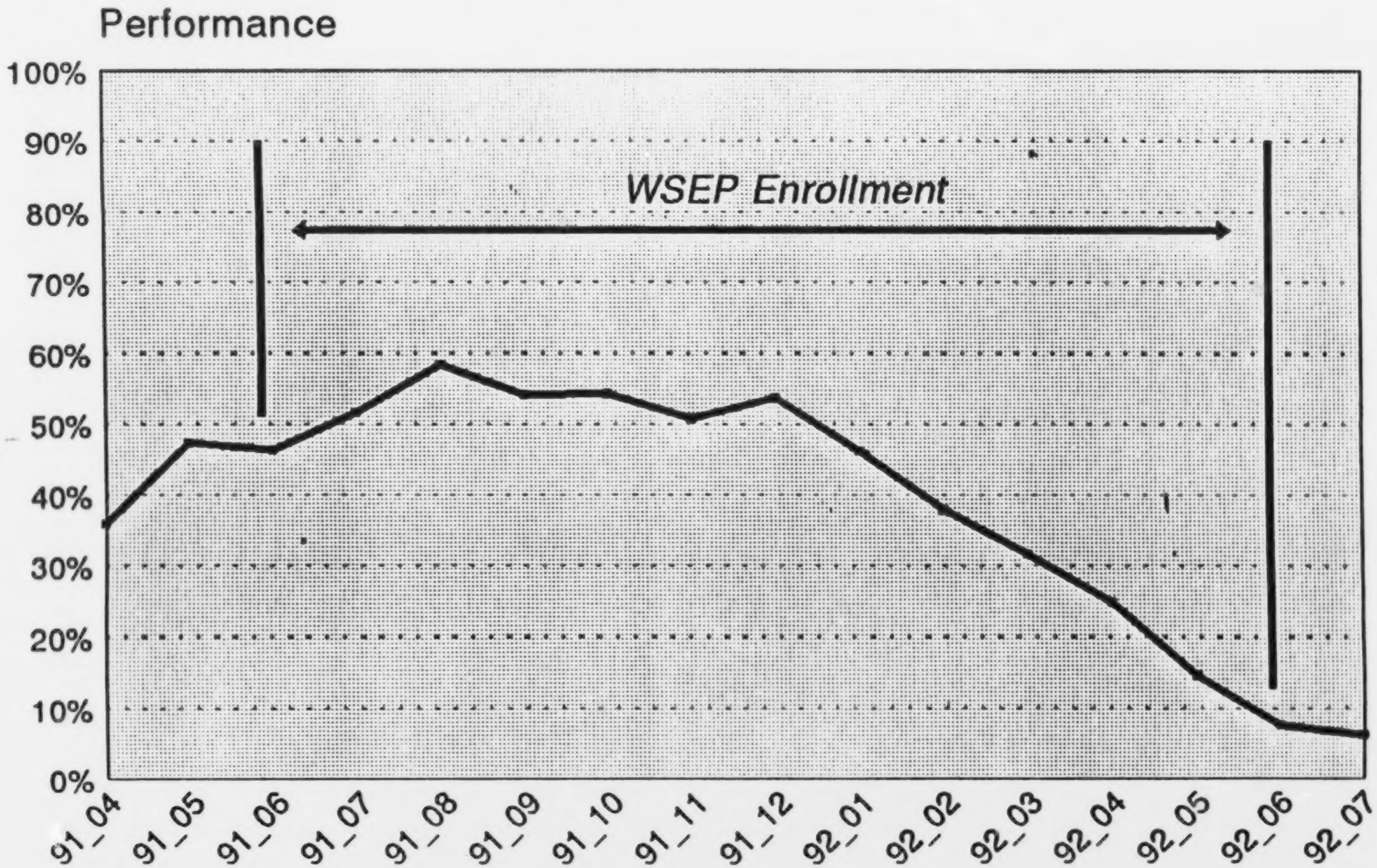
Months

Performance Analysis

Workplace Skills Enhancement Program

Employee - 11552

Chart 10



Months

Performance Analysis

Workplace Skills Enhancement Program

Employee - 21624

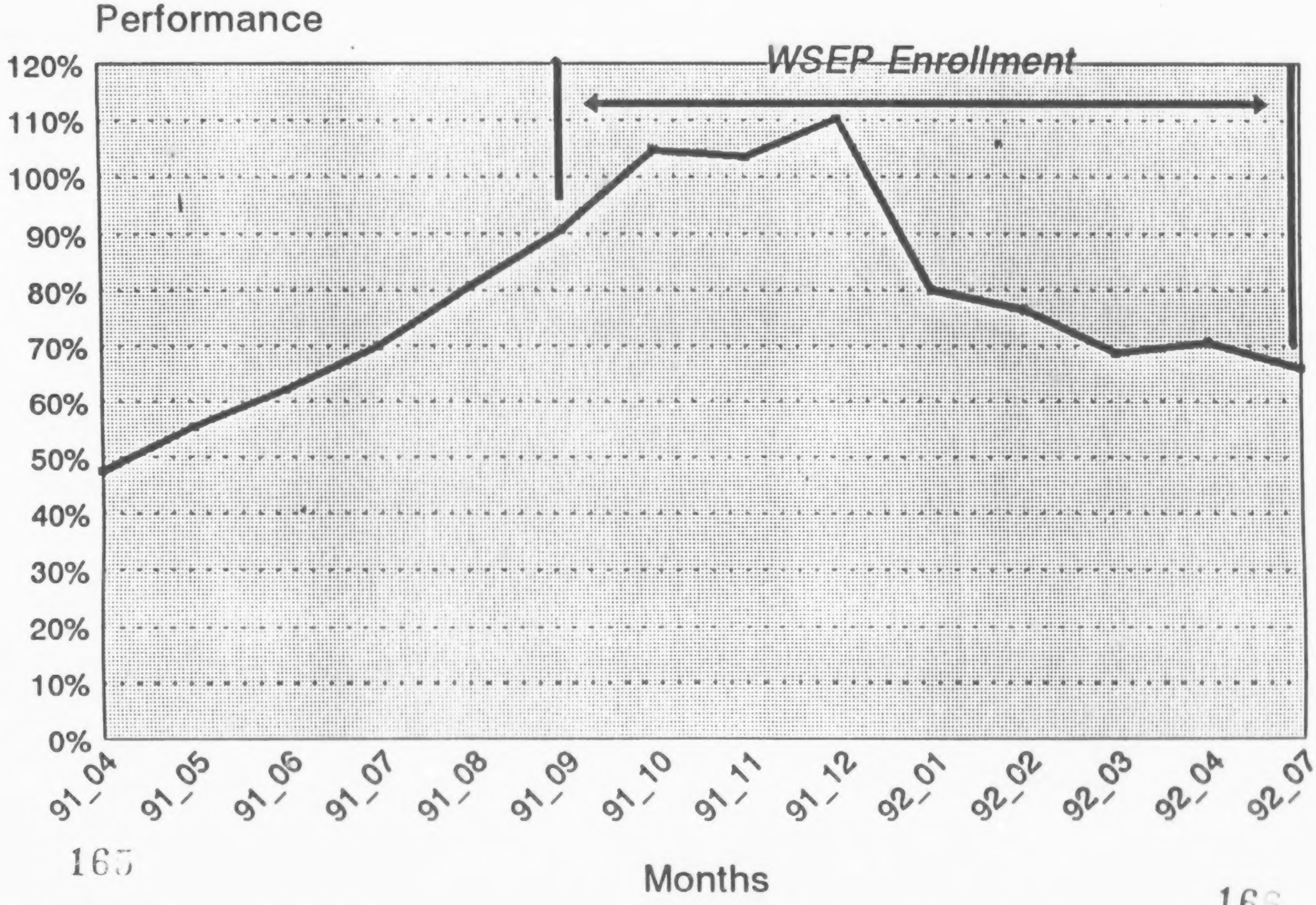


Chart 11

Performance Analysis

Workplace Skills Enhancement Program

Employee - 20609

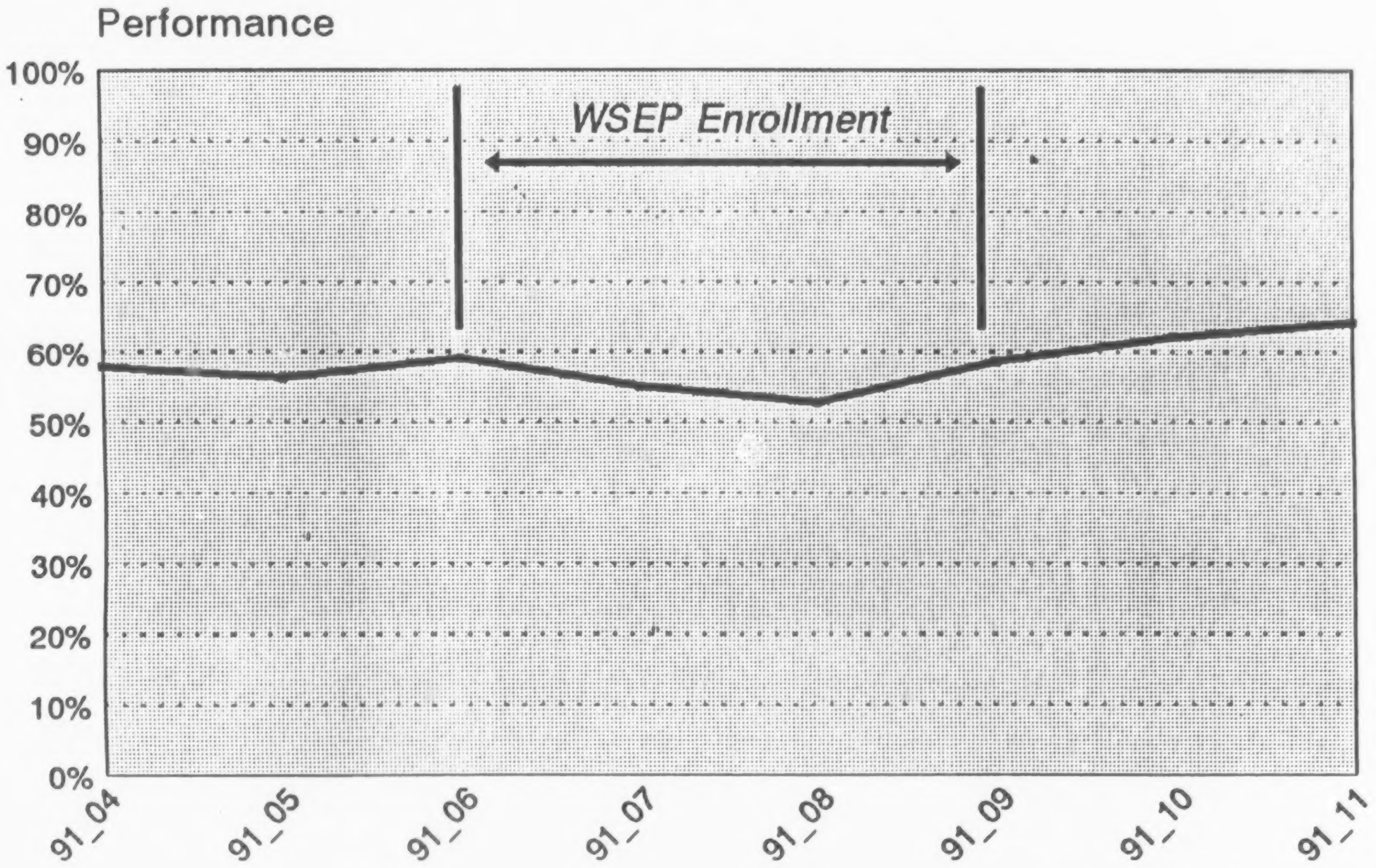


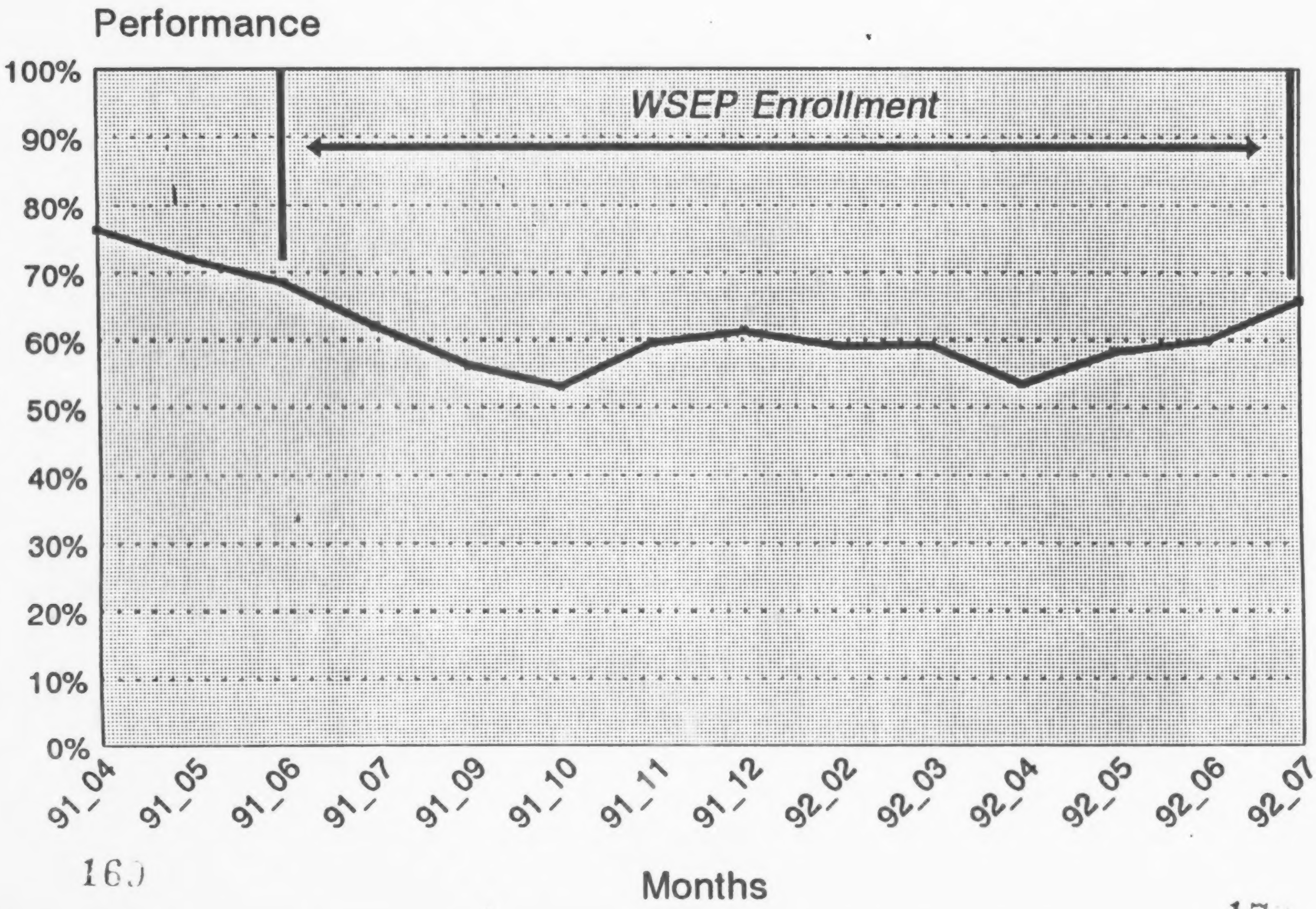
Chart 12

Performance Analysis

Workplace Skills Enhancement Program

Employee - 18343

Chart 13



Performance Analysis

Workplace Skills Enhancement Program

Employee - 13471

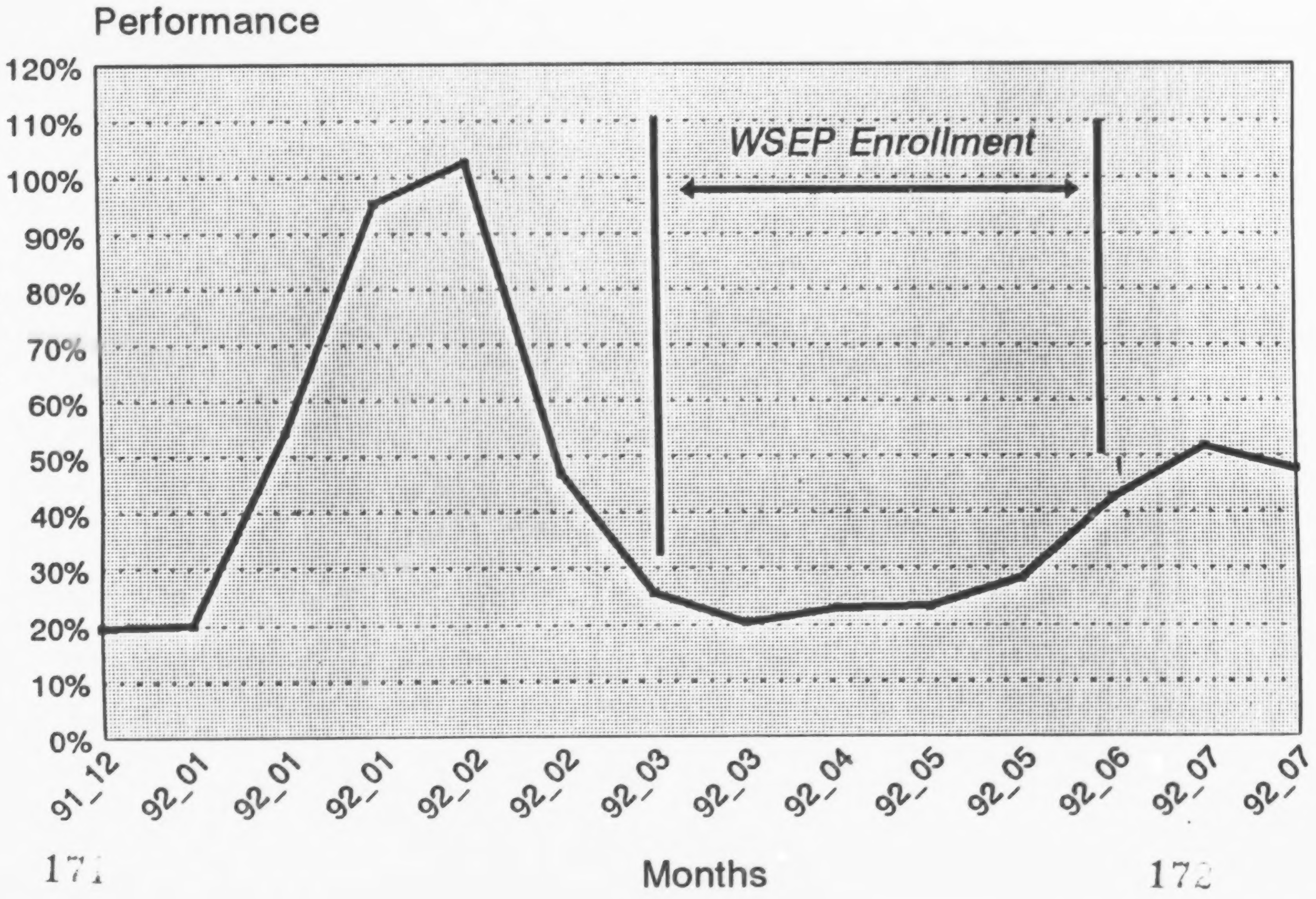


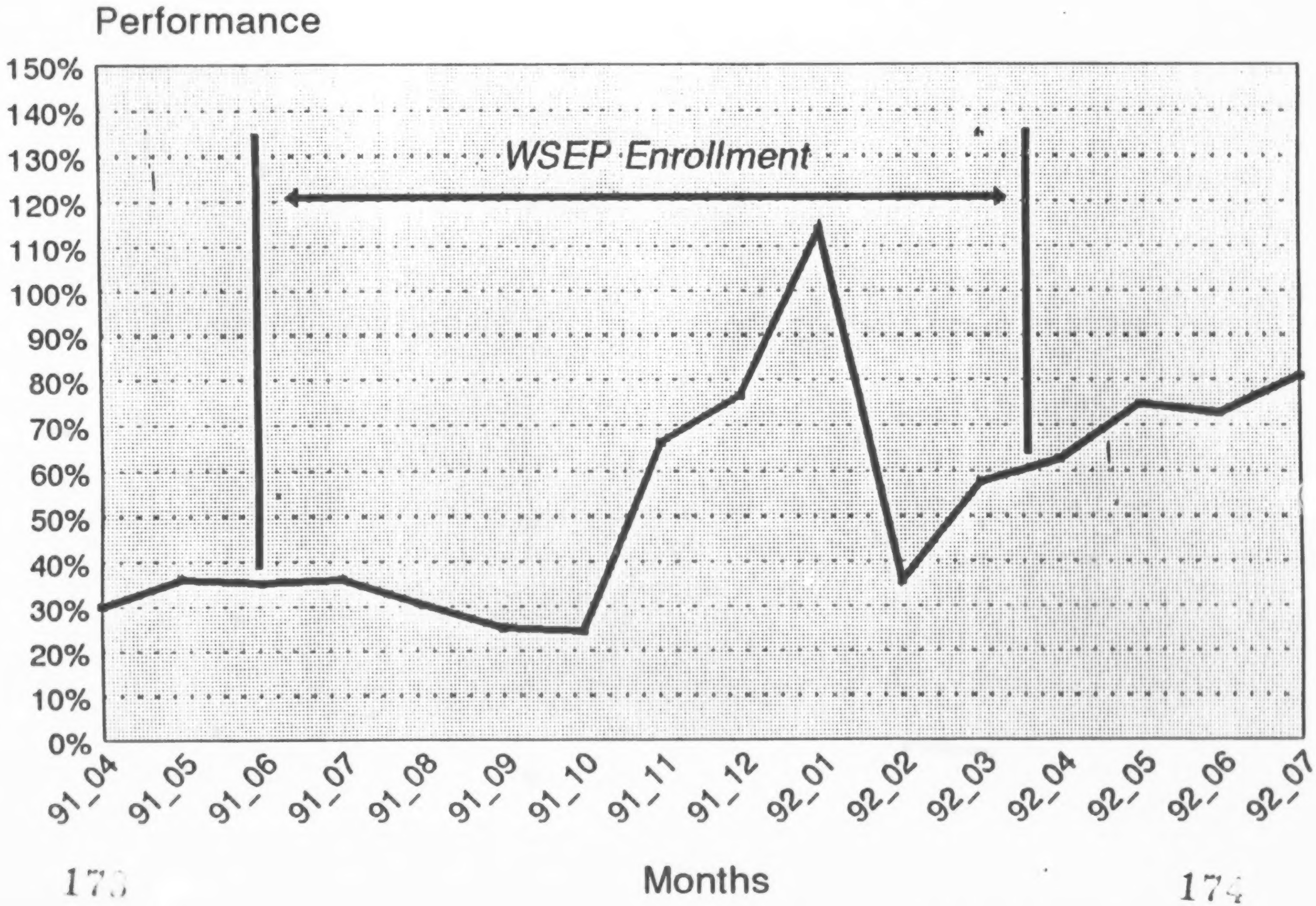
Chart 14

Performance Analysis

Workplace Skills Enhancement Program

Department - 8817 (4 Employees)

Chart 15



in the lowest level class scored 100% on the test. Previously this worker could not pass the Crane Safety Test without special tutoring from the Program Counselor. This participant showed remarkable improvement in test-taking as well as math comprehension. Due to consolidation of the Plating Room Operations, workers in that area were required to calculate the etch rate of metals, a new task for them. Three of the five had failed the mandated class, but after enrollment in WSEP, all three were given remedial instruction and another opportunity to take the test. All three of them passed the test on the next attempt and one went on to earn his GED.

Other Performance Outcomes

SUPERVISOR SURVEY

The company distributed a supervisor survey in order to collect data on improved work habits and technical skills. This survey provided data on those workers who were considered "non-production" and consisted of cafeteria or maintenance workers. The most impressive data on performance gains was documented by the supervisors who work closely and continuously with the employee/program participant. Note the following positive trends associated with participation in WSEP classes:

*89% noted improvement in completing tasks on time

*89% acknowledged good attendance records

*88% thought that work quality improved

*91% noted positive, flexible attitudes under the stress of work changes

*76% noted improved safety awareness by having fewer accidents

*71% would recommend participating employees for higher level jobs or promotions

*94 % would recommend WSEP classes to their other employees

External Evaluation of the Program

An external evaluator was hired to visit the program and write a report of his observations. The evaluator was chosen for his long career in adult educator and his experience with workplace literacy programs. A schedule was created for the evaluator to interview all personnel connected with the program, to visit classes, and to review program materials within a three day site visit. His report is contained as appendix at the end of this section.

Outcomes Survey

In September of 1992, a follow-up survey was sent to 160 program participants to ascertain if a workplace literacy/workbased education program resulted in the enhancement of personal lives. Forty-four surveys (36%) were returned and showed that education improves life professionally as well as personally. Participants reported the following changes:

27 improved communication skills in general
21 read more for pleasure: books, magazines, newspapers
20 improved keyboard skills
16 wrote letters and notes more often
14 improved spelling
11 traveled to new places or tired new activities
10 helped their children more with homework
10 received their GED
9 purchased a computer
9 visit the library regularly
7 entered other training programs
6 other: improved self-confidence, test-taking skills
5 waiting to hear about their GED scores
5 better able to read the Bible
4 registered to vote
4 attended PTA meetings/call child's teacher
3 took a college course
3 trained more quickly for a new job
3 got a better job after lay-off
2 opened a saving account
0 saw no change

WSEP SUPERVISOR SURVEY TOTALS FOR ALL SESSIONS
AS OF AUGUST 1992

Site : Glen Burnie

Total Surveys Distributed: 89
Total Returned: 62
Percentage Returned: 69.66%

			Not at All	%	Somewhat	%	To a Large Extent	%	No Response	%
I.	Since being enrolled in WSEP:									
1	is employee punctual in arriving to work?		1	1.61%	15	24.19%	42	67.74%	4	6.45%
2	does employee attend work when scheduled or notify supervisor in advance of absence?		0	0.00%	8	12.90%	50	80.65%	4	6.45%
3	does employee leave early from work? (Do not include WSEP class time)		37	59.68%	14	22.58%	7	11.29%	4	6.45%
4	does employee maintain an acceptable attendance record?		0	0.00%	10	16.13%	47	75.81%	5	8.06%
II.	Have you noticed improvement in:									
1	employee following directions (oral/written)?		2	3.23%	23	37.10%	32	51.61%	5	8.06%
2	work quality?		1	1.61%	30	48.39%	26	41.94%	5	8.06%
3	completing tasks/assignments on time?		1	1.61%	33	53.23%	23	37.10%	5	8.06%
4	working effectively without supervision?		1	1.61%	19	30.65%	34	54.84%	8	12.90%
5	computer keyboard skills (time clock, paperless MARS or job clocking)?		3	4.84%	19	30.65%	13	20.97%	27	43.55%
6	resolving work related problems?		0	0.00%	39	62.90%	17	27.42%	6	9.68%
III.	Does employee demonstrate positive attitudes/behaviors by:									
1	showing self-confidence?		0	0.00%	20	32.26%	38	61.29%	4	6.45%
2	demonstrating reliability and dependability?		1	1.61%	22	35.48%	36	58.06%	3	4.84%
3	adapting to changes at work (flexibility)?		0	0.00%	23	37.10%	35	56.45%	4	6.45%
4	participating in PMT meetings?		5	8.06%	11	17.74%	32	51.61%	14	22.58%
IV.	Have you noticed improved interpersonal relations of participants by:									
1	cooperating with co-workers?		1	1.61%	25	40.32%	30	48.39%	6	9.68%
2	reacting appropriately to direction and criticism?		2	3.23%	35	56.45%	20	32.26%	5	8.06%
3	lower number of complaints?		5	8.06%	34	54.84%	17	27.42%	6	9.68%
V.	Does employee show safety awareness by:									
1	having less accidents?		9	14.52%	20	32.26%	22	35.48%	11	17.74%
2	wearing proper protective gear?		1	1.61%	21	33.87%	28	45.16%	12	19.35%
3	understanding and practing safe working practices?		1	1.61%	17	27.42%	34	54.84%	10	16.13%
VI.	Would you recommend:									
1	this employee for a higher level job?		8	12.90%	24	38.71%	21	33.87%	9	14.52%
2	the WSEP for other employees?		1	1.61%	18	29.03%	40	64.52%	3	4.84%
		TOTALS :	80	5.87%	480	35.19%	644	47.21%	160	11.73%

WSEP SUPERVISOR FOLLOW-UP SURVEY

COMMENTS - GLEN BURNIE

5/21/92

1. Employee volunteered for lay-off in January and is no longer employed here.

2. Employee was laid-off in January of 1992. He had a problem with self-confidence. He had started to show signs of improvement.

3. This employee has a lot of potential but does not always exhibit the initiative to get the work done in a timely manner.

4. This employee was laid-off in January of 1992. He was always improving in his job but upper management had a negative mind set against him, which would have ultimately stiffled his career.

5. As a specialist improvements in this employees work are often subtle. However, this employee is one of the better techs. in the department.

6. This employee was laid-off in January of 1992. He showed marked improvement in his abilities as a worker.

7. Employee has always had a lot of confidence in his abilities.

8. The curriculum offered does not fit the employees in this department (#8924).

9. Employee was sometimes so engrossed in workload that WSEP seemed a minor annoyance.

10. Employee enjoyed WSEP.

11. For the most part this particular employee always demonstrates positive attitudes about the workplace. I have noticed an increase in her morale and her ability to succeed.

12. Participation in the WSEP has increased the participant's self-esteem to a higher level. More awareness is given to the workplace and how her role effects the productivity and overall efficiency of the group.

13. This employee has somewhat of an attendance problem, which has been noted on her annual review. There has been a change in her overall attitude towards working with others and also job performance since enrollment in the WSEP.

14. This program has had a definite effect on her work habits and has increased her overall skills. Her attention span has increased which allows her to think for herself and understand procedures. She enjoyed the program so much that she enrolled for a 2nd semester.

15. Employees are professionals. These questions may apply to hourly personnel, but not to my QE's.

8/11/92

1. Many of the areas marked "not at all" are areas that did not need improvement- see sections I, II, IV and V.

2. Employee had traits listed in I before attending WSEP. Employee complained about instructor, that they were not learning anything. Not enough hands-on teaching using PCs. Employee was ready to quit after 4 weeks.

3. Most of the questions on this survey were inapplicable to this employee. This employee already had excellent work habits and attitudes. The purpose of the course was to familiarize her with computers so that she can use them in her illustrating work.

4. This was an excellent employee before WSEP. This class did not greatly improve this person by expanding on already good performance.

WSEP SUPERVISOR SURVEY TOTALS FOR ALL SESSIONS AS OF AUGUST 1992

Site : Middle River

Total Surveys Distributed: 98
Total Returned: 51
Percentage Returned: 52.04%

			Not at All	%	Somewhat	%	To a Large Extent	%	No Response	%
I.	**Since being enrolled in WSEP:**									
1	is employee punctual in arriving to work?		3	5.88%	10	19.61%	37	72.55%	1	1.96%
2	does employee attend work when scheduled or notify supervisor in advance of absence?		1	1.96%	12	23.53%	37	72.55%	1	1.96%
3	does employee leave early from work? (Do not include WSEP class time)		39	76.47%	8	15.69%	1	1.96%	3	5.88%
4	does employee maintain an acceptable attendance record?		6	11.76%	8	15.69%	35	68.63%	2	3.92%
II.	**Have you noticed improvement in:**									
1	employee following directions (oral/written)?		4	7.84%	26	50.98%	18	35.29%	3	5.88%
2	work quality?		5	9.80%	22	43.14%	22	43.14%	2	3.92%
3	completing tasks/assignments on time?		4	7.84%	26	50.98%	19	37.25%	2	3.92%
4	working effectively without supervision?		6	11.76%	19	37.25%	23	45.10%	3	5.88%
5	computer keyboard skills (time clock, paperless MARS or job clocking)?		6	11.76%	18	35.29%	15	29.41%	12	23.53%
6	resolving work related problems?		8	15.69%	25	49.02%	16	31.37%	2	3.92%
III.	**Does employee demonstrate positive attitudes/behaviors by:**									
1	showing self-confidence?		2	3.92%	22	43.14%	26	50.98%	1	1.96%
2	demonstrating reliability and dependability?		4	7.84%	19	37.25%	27	52.94%	1	1.96%
3	adapting to changes at work (flexibility)?		3	5.88%	22	43.14%	23	45.10%	3	5.88%
4	participating in PMT meetings?		5	9.80%	16	31.37%	20	39.22%	10	19.61%
IV.	**Have you noticed improved interpersonal relations of participants by:**									
1	cooperating with co-workers?		0	0.00%	27	52.94%	22	43.14%	2	3.92%
2	reacting appropriately to direction and criticism?		7	13.73%	22	43.14%	19	37.25%	3	5.88%
3	lower number of complaints?		4	7.84%	21	41.18%	21	41.18%	5	9.80%
V.	**Does employee show safety awareness by:**									
1	having less accidents?		2	3.92%	13	25.49%	30	58.82%	6	11.76%
2	wearing proper protective gear?		2	3.92%	8	15.69%	35	68.63%	6	11.76%
3	understanding and practing safe working practices?		2	3.92%	8	15.69%	34	66.67%	7	13.73%
VI.	**Would you recommend:**									
1	this employee for a higher level job?		13	25.49%	19	37.25%	16	31.37%	3	5.88%
2	the WSEP for other employees?		0	0.00%	4	7.84%	44	86.27%	3	5.88%
		TOTALS :	126	11.23%	375	33.42%	540	48.13%	81	7.22%

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WSEP SUPERVISOR FOLLOW-UP SURVEY

COMMENTS - MIDDLE RIVER

5/21/92

1. I think this program helps build an employees self-esteem & confidence and should continue to be offered to all employees!

2. This program helps build an employees self-esteem & confidence and should continue to be offered to all employees.

3. Employee has apparently enjoyed her work in class immensley. She told me that class has been very challenging and rewarding.

4. This employee has problems filling out timecards, following directions, and accepting constructive criticism. I feel she tries but is unable to do any better. Her attitude toward co-workers has improved since attending WSEP.

5. This employee's overall attitude has improved substantially since attending WSEP. Interaction with supervisors & co-workers is excellent.

6. Employee is as high as he can go in this department. To promote to salary would take more work on the employee's and the company's part.

7. This employee never gave 100% toward WSEP. In fact, I do not think he/she finished the last semester and made excuses for not going to class.

8. This employee is taking advantage of the WSEP and appreciates it.

9. This program improved the employee's self-confidence and attitude.

10. Employee was never trained to perform all the functions in his classification. He was recalled & loaned to me for my trained employee.

11. This employee's attitude has improved, his work habits were good but now are very good. I would certainly recommend him for a higher level position.

12. This employee constantly shows initiative and high performance in her present position and I'm certain any future positions would receive the same high quality of effort.

13. I feel that WSEP is very much needed, and hopefully more employees will take advantage of this program.

14. This employee is a very good stockkeeper and is able to work with little supervision.

15. Written and computer skills most definitely improved. Work habits and basic discipline improved somewhat.

16. As with the others, written and computer skills improved. Work habits and self-confidence did not change significantly.

17. This employee's attitude has improved somewhat. Also he does try to solve his own problems on the job.

18. The WSEP did a lot for this employee to build-up self-esteem.

19. This employee is mechanically oriented & would do well in any mechanical or assembly type position, in my opinion.

20. Employee is a highly motivated, well adjusted individual.

21. My opinion is this employee is not capable of performing any other job other than the one presently held.

8/11/92

1. WSEP is good for my employees, but in order for them to attend class, I need back-up on the job or the job will get cut short.

2. Only problem in today's environment is the loss of an employee for a couple of hours. We in tooling services have reduced so dramatically that we suffer from the loss of even 2 hour's worth of customer service.

3. I feel that M. is an asset to the Martin Marietta Corporation. Since he started the WSEP program, his level of confidence has improved. M. has always been a good employee. His ability to listen has gotten better and he is able to accept help from others.

4. This employee is an excellent employee, so not much improvement is needed in section II.

5. Since A.'s enrollment into the WSEP, I have noticed a distinct change in her attitude towards her job. A. appears to be gaining motivation.

6. D. should have additional training before upgrading, since "A" is the highest he can do in shipping.

7. This program should continue to be offered. It helps build employees' self-esteem.

Anecdotal Record

Michael is a 25 year-old maintenance assistant at the Glen Burnie plant. He is a special education school graduate. I worked with him during the first session.

Although he says reading is a problem for him, I would not agree. He is an excellent reader, but needs to work on being a better speller. I realized there is a direct correlation between being a poor reader and poor speller, but I found that when Michael saw a word in print, he was almost always accurate in "sounding out" the word. When writing, he had a problem with spelling because he did not remember how the word looks in print, but he did fairly well phonetically.

I noted "begist" on his 6/24/91 journal entry. Although misspelled, it's fairly accurate phonetically. I did tell Michael to sound out the word again and he arrived at "bigist", which is a lot better. I told him that although that too was not correct, it is closer to the accurate spelling. I did not like "prombel" because it indicated that he wrote haphazardly and barely sounded out the word. He then came up with "problim", which was excellent. I never gave Michael a time limit when writing - working with such a restraint compels him to speed and misspell.

His spelling improved dramatically as the session progressed. Whenever Michael misspelled a word, I would write "sp" above the word and write the word correctly at the bottom of the page. He would then transfer the words to his notebook to study so that he would not misspell the same word again; if he did, I would simply write "sp" above the word but not correct it for him. He would then know that he has that word in his "personal dictionary". We also studied the correct use of periods and quotation marks.

Michael was an eager learner and subsequently caught on quickly. He was a pleasure to work with and I shared a lot with him.

Anecdotal Record of H.

H. is completing the third session of WSEP, the last two of which she has been a student in my level two class. H. has a high school diploma from a Vo-Tech school and is currently employed as a housekeeper. The most noticeable improvement this session has been in her classroom behavior, which can be somewhat boisterous. To understand her behavior it is necessary to comment on her home life. She and her twin sister were adopted in Germany twenty-eight years ago by a career military family. In addition to the twins, there is a birth son to complete a family of five. For the past twenty years, the father has had an ongoing battle with alcoholism. Recently, H. confided to me that the doctors now believe that his drinking problem is related to post-traumatic stress syndrome from Vietnam. Whether or not this is true, I do not know. H. tells me her dad, who is in his late fifties, no longer works, looks "terrible" and appears ready to die.

H. herself has had a drinking and drug problem in the past. However, she had some intervention in her life, is a regular churchgoer now and appears to have shaken that problem. However, in many ways H. shows the effects of a dysfunctional family. At times she responds with a very loud, high-pitched and quite inappropriate laugh in class. However, in this session she has not done this too often.

As a result of the "restructuring" going on in the workplace, H. has lost her comfortable regular job and now works with no benefits for a subcontractor at the same work site. Of course she has felt the usual feelings of rejection and uncertainty that the other laid-off workers have experienced, the only difference being she still comes back to the work site. Considering the stresses at the workplace and the daily emotional problems she faces as a young, single woman in a dysfunctional household, it is truly amazing she is as stable as she is. Her educational goal is to enroll in an vocational program for training in some work that would allow her to be employed in the daytime. She is tired of nighttime work.

Academically, H., who is mildly retarded, functions at the fifth/sixth grade level in reading and at the fourth grade level in math. I must admit there haven't been any tremendous strides made in the sessions she's been with me. However, after learning of her family life, past and present, and the stresses she has been under at work, I consider her presence in class to be an accomplishment. She is very cooperative, has almost no raucous outbursts and tries to do the work assigned. Having older married women in the class has helped, I believe. The other students give her encouragement and are considerate of her intellectual limitations.

Recently, when learning to use the calculator to convert foreign currency to U.S. dollars, I learned of H.'s homeland and her German heritage, which is of interest to her. I believe one of the keys to her future progress lies in relating her past history and heritage to what she is doing today. I saw how interested she was in map skill work when the task related to Germany.

With H.'s limited intellect, I do not honestly see her moving out of low-level, repetitive tasks; however, she has a good work ethic, is dependable, trustworthy, and would make a good employee anywhere those qualities are needed.

*Note: In speaking to H. some months later, she feels that she has changed tremendously. She said that she feels more at peace with her work and family situation, and that she will find a way to get vocational training soon.

Anecdotal Record of C., Session III

C. entered Session III, Level 2 in the fourth week, so I do not feel that I know her quite as well as I might have had she started the session earlier. However, I do know she is highly motivated to complete the work that would prepare her for the GED exam. In her previous class she did take the pre-GED exam, the results of which showed she is more competent in math than reading. So, I am anticipating that this spring she will again test in the same manner.

C. was widowed early in her marriage and left with a one-month-old baby. Recently, when we worked in class on a Readers Digest story about a single mother whose dream it was to complete her education, C. had much to contribute. At the suggestion of both the counselor and administrator in WSEP, C. is going to take the GED pretest again. If motivation can get one through this program, C. is going to make it. She has a wonderful sense of humor, is considerate of others, and has the ability to work well with both men and women. Physically, she is a big woman, so as a "hose grinder" who has to be on her feet all day, she seems up to the task.

C. attended a high school in Baltimore that did not enjoy the best reputation back in "those days". I feel that her academic problems are a combination of poor educational environment and low-average ability level. She has had to work hard most of her adult life in a physically demanding factory job so she is trying to improve her skills to stay in a very uncertain workplace that may not have need of her speciality in the near future.

I anticipate no motivational or attendance problems with C. in the next session. Her greatest strength lies in math, which she can handle fairly well at the sixth grade level. Reading comprehension can be a problem. C. needs to work on vocabulary development and writing, starting with topic sentences and supporting details. But, with her good attitude, C. did do well on the pre-GED exam!

Anecdotal History of J.

J., a thirty-two year old high school graduate, has had Supply training in the military and currently works in the stock room in the evenings at Martin Marietta. Physically, J. is a very large man -- at least six feet tall and quite rotund. He likes to eat a lot and frequently will bring snacks, mostly candy, to class. His physique is similar to a mountain and his personality to a volcano -- explosive! It's probably a good thing J. works alone, because his volatility would not suit group or team work, at least not at this time. He has calmed down a little since September and is a little more amenable to suggestions about his academic work.

Not being privy to his personnel file, I can only describe his behavior in class, which , I feel, has been greatly influenced by a family environment unsuitable to developing high self-esteem. J. told me his father said he would never amount to much. I am not sure whether his dad is still at home where J. currently lives with his mother.

J. is divorced from his wife, an Italian woman, who currently lives in Great Britain with their little four-year old girl. This is not a happy time in J.'s life, as he misses his daughter and has been severed almost entirely from her, yet he has to send $160.00 a month child's support -- much resented. I have inferred that J. was raised in a fragile household; therefore, when he married, he did not have a good role model to pattern himself after when it was his time to be a husband and father.

Academically, J. reads well enough to handle most high school reading matter; however, his written work is quite deficient. He is quite aware of his deficiency in this matter and if at all possible, will choose to respond orally rather than do written work. He does contribute a great deal to discussions in class and has a good general knowledge of many subjects. He is a religious person, a member of the Church of Latter Day Saints, and would very much like to live a normal adult (married) existence. Much of this information comes from off-the-cuff remarks while verbally sparring with his classmates.

J. can control his outbursts, as I personally witnessed one day. The class, which had been studying the uses of data bases at the workplace, was asked to bring in a sample from their site if possible. J. admitted the stock room does use one; however, on the day he was to bring it in, he was very reluctant to get it. After a very firm request, he sulked, then got it on his break. The sample was worth the bother, so I thanked him and said I would make a visual aid and use it next time with the overhead so the whole class could see it as he described how it is used. After class, when I looked for the paper, it was nowhere to be found! After searching for ten minutes, I decided J. must have taken it when he left! I had never had a student do that before so I marched over to the stock room and got clearance from Human Resources. (Supposedly it was T.S. -

top secret!) I guess it was my lucky day, for just as I was about ready to give up, along came the head of Human Resources, who looked at J. as if he were loosely wired. To make a long story short, J. and I get along just fine now. For the most part, I do not confront him or use a frontal attack method; I don't try to control him, but I do let him know that there is a point at which I myself refuse to be pushed around.

J. is the adult version of the child who has poor self-esteem due to a hostile family environment, possibly plagued by economic insecurities. He is unsure of himself and his abilities which, I feel, are considerable. It's been a tough session, but he is coming back!

Anecdotal History of T.

T. is almost the textbook case of the traditional woman, who, due to life's circumstances, has to take charge and be the dominant parent in the family. T. was born and educated in rural North Carolina where she received a very rudimentary education. She migrated to the Big City where she married, had a child and eventually came to work at Martin Marietta where she is employed as a solderer. She is a strong woman, who has the personality to fit in well here; she is dedicated, reliable, follows directions and has the good dexterity which is most important in her line of work.

If annual written exams were not given, T. would probably not be in my class, as she has a tremendous amount of responsibility at home now. Within the last six years, her husband, a former MTA employee, injured his back, requiring him to retire early and receive S.S. disability payments, which are not enough to sustain a four-member family. Yes, I said four, since T.'s teenage daughter just gave birth to a premature infant who is sick alot, according to T. T.'s husband does help with the baby while the young mother goes to school.

For the most part, T. is very quiet in my class, except when called upon. Recently, however, I had a chance to see her open up in the workshop on test preparation given by our counselor. The questions being dealt with came from the annual solderer's exam something T. really knows! She contributed quite a bit and seemed to enjoy the activity. When asked to read aloud, she got "stuck" on a technical word: *desensitization*. T., who has very limited word attack skills, really was at a loss.

At least this experience with her has given me some insight in how to help her next session. I plan to concentrate more on word attack skills and phonics. Her math is equally deficient; however, she does keep the family books, so I guess you could say she is at the survival level in her math achievement. T. has a long way to go to achieving basic adult education goals, but she has a wonderful attitude and is a pleasure to have in class. Out on the floor, where I occasionally run into her, she always has a big smile!

Anecdotal History of Two Students

Linda entered the WSEP in the Fall of 1990. She was apprehensive because her previous school experience had not been very positive. Although she graduated from high school, Linda felt that she was passed from grade to grade without really having received a good foundation in basic skills. She viewed our program as an opportunity to acquire the skills she had missed. Primarily, Linda wanted to improve her math skills. To accomplish this she had to master the multiplication tables first. Once Linda mastered the multiplication tables and was able to solve multiplication and division problems, her self-esteem soared. She voiced the realization that if she could learn how to multiply, she could learn other things as well.

Linda has become a real student. She studies at home, and in class she takes notes, asks questions, and contributes meaningfully to class discussions. She tackles new skills with a problem-solving approach : "Now, let me see...," she'll say to herself.

As of the Fall 1191 semester, Linda's test scores reflect her hard work. At 235, her CASAS Level C Reading Scale Score shows a 5 point increase and at 216 her CASAS Level B Math Scale Score shows a 3 point increase from the previous semester. Even more gratifying than the increase in test scores is Linda's increased self-confidence as a learner.

David's goal is to get his G.E.D. He entered the Workplace Skills Enhancement Program in January of 1991. Based on his CASAS scores of 219 in reading and 205 in math, David was placed in Class I. By the end of the semester David had increased his scores to 227 on the CASAS Reading post test and 222 on the CASAS Math post test. His improvement made him eligible to enroll in Class II for the following semester. David remained in Class II for two semesters. His post test CASAS scores for the last session, Fall 1991, were 235 in Reading and 235 in Math. These scores indicate that David is ready to prepare for the G.E.D., and he will be attending the G.E.D. class beginning in January of 1992.

David's test scores reflect an overall increase in self-esteem. Since he has learned how to solve some of the math problems he encounters on the job, David feels more confident. Even his journal entries show more risk-taking on his part. In the beginning, David was a reluctant writer due to an apparent spelling disability. Recently his journal entries have gotten longer and more detailed. In a particularly interesting narrative, David described his involvement in rescuing a drowning victim.

Many other students besides Linda and David have confided that the Workplace Skills Enhancement Program has had a positive influence on their lives. Success in this program has encouraged them to try other types of vocational training classes, to develop other skills in the event of their being laid off, and to attend college.

Anecdotal History of Leroy

Leroy has been laid-off as an Assembler/Installer for almost three years. He has participated in the program since its inception. Although he is currently unemployed, he has enrolled in the program for self-enrichment and to improve his workplace math and writing to make himself more employable.

To assist Leroy, Elizabeth Mandlen, the counselor, devised a math checklist to guide him with fractions. He has also been working on improving his grammar and writing.

The first record sheds a positive light on how he deals with the stress and pressure of being unemployed for more than two years and the single parent of a daughter with congenital birth defects and disorders. He has a problem capitalizing "I" which also reflects how this class is good for his self-esteem.

The second record reflects Leroy's commonly misspelled words that he records and reviews for future use. Instead of submitting a second draft, he chose to "white-out" and rewrite the misspelled words.

The third record is a lot longer because his confidence in writing has been boosted. There are still misspellings but his strategy is to compile a list of the words that he is misspelling and to study it.

Leroy is a hard worker and along with improving his workplace math and writing, his self-esteem has also improved.

Anecdotal History of Ron

Ron is a Tool and Cutter Grinder and has been at Martin Marietta for almost 14 years. He has enrolled in the program for a second session to learn more about computers, learn Algebra, and develop strategies for becoming a better speller.

I introduced him to the fundamentals of the computer to show the similarities among them all so that he would feel comfortable with the different types in his work area. We work with Algebra I together in the Number Power book and I enrolled him in the Algebra I course in the CBE lab. For writing, after submitting a journal entry, he would record and study the words he had misspelled.

At the beginning of 1992, Ron purchased a Franklin Speller. All words that he entered into the Franklin Speller were recorded and he checked his personal spelling list before resorting to the Speller. The goal is to not use it more than once for the same word.

After my suggestions, Ron had fewer misspellings. This reflects the fact that our strategies are working because not only is he recognizing when a word is misspelled, but also adding that word to his dictionary and not misspelling it in future entries.

VIII. Workbased Education: Challenges and Solutions

A. Time Constraints for Production Schedules

One of the recurring problems in a manufacturing environment is the pressure placed on the worker to miss class and finish a production project. WSEP maintained a policy of flexibility so that a worker might decide to work the overtime, as long as he/she missed no more than four classes out of twenty-four sessions. The company also responded to this dilemma by making it mandatory that the worker, not the supervisor, have the ultimate authority over the issue of attending or not attending class.

B. Budget Constraints for Facilities or Hardware

Because of the economic recession, Martin Marietta suffered from an unexpected tightening of their budget. Without the support from the company's upper management, the Workplace Skills Enhancement Program would have had cramped facilities at the Glen Burnie site and insufficient computers for CAI. The Workplace Skills Enhancement Program could not possibly have enjoyed its success in retention and positive learner evaluations without the approval of funds to spend on comfortable classrooms and IBM as well as Macintosh computers, and that came from the support of upper management.

C. Downsizing, Retention and Enrollment Problems

The company laid off approximately 50% of its workforce during the period of the grant. This meant a serious reduction in the target population and a decline in terms of retention and enrollment. The enrollment challenge was met by the working committees at each site, who planned aggressive campaigns with flyers, posters, PMT meeting presentations, a Union mailing to laid-off employees and briefings to some of the subcontract workers who had not originally been included in the grant. It was also decided that workers who were laid off would be allowed to continue their participation and many of them took advantage of the program. Our retention rate averaged about 90%.

D. The "L" Word

The term "literacy" itself has so many negative connotations: illiteracy, ignorance, and shame. When the newspaper articles about Essex Community College and Martin Marietta receiving the grant emphasized those negative connotations and the employees read about it, there was a brief, negative backlash toward the program. However, the briefings to the employers dispelled the anxiety associated with the term "literacy" by promoting life-long learning and the idea of a free educational check-up.

But it is our belief that the term "workplace literacy" should be replaced with "workbased education" or "workbased learning."

E. Union and Management Tensions

Restrictions placed by the company on communications between the college and the union diminished the emphasis on a three-way partnership. As the education partner; however, it was necessary to remain neutral in the ongoing relations between the company and the Union. The Union adjusted well to these guidelines by focusing its supportive efforts on the Middle River site. The college allowed the company to act as liaison for all communication with the Union.

F. Education versus Business

It was obvious to both the business and the education partner that there are differences in values, beliefs and attitudes. We recognized those differences and sought to educate each other by communicating consistently and objectively about why we took a certain position or opinion on issues like: academic freedom, facility changes, supervisor awareness training, and managing staff and faculty.

Noticeable differences arose also from gender orientation: business is predominately male and education predominately female. Representatives from the education partnership developed and applied negotiation skills which were so necessary in a corporate environment. Non-competitive teambuilding by both partners solidified the relationships and encouraged conflict-management. Shared ownership of the program helped each partner to contribute in their area of expertise.

However, it was the on-going education of each partner which made the program so successful when downsizing itself could have closed the program. We felt that we were united in the effort to serve the educational needs of the worker.

WORKPLACE SKILLS ENHANCEMENT PROGRAM
Target Population & Enrollment Activity

	Target Group	Enrollment	
	July '90		
MR	762		Proposal to Feds
GB	506		
	1608		
	Aug '90		County & State grant awarded
			60 Participants expected to enroll
	Sept '90		
MR	676		1st session County & State
GB	619		Middle River only
	1295	**24**	
	Jan '91		
MR	607		2nd session County & State
GB	537	**38**	Middle River only
	1144	**62**	**Total County & State grant participant enrollment**
	Mar '91		Federal grant awarded
			400 Participants expected to enroll
	June '91		
MR	543		1st Fed/session (42/40)
GB	506		
	1049	**82**	
	Sept '91		
MR	545		
GB	526		
	1071	**69**	2nd Fed/session (41/28)
	Jan '92		
MR	473		
GB	432		
	905	**50**	3rd Fed/session (35/15)
	April '92		
MR	474		
GB	410	**54**	4th Fed/session (29/25)
	884	**255**	**Total Federal Participant Enrollment**

IX. Dissemination Practices

Attending and presenting at professional conferences, communicating with other programs on OTAN, and participating with other literacy agencies were some of the dissemination practices the program coordinator and staff participated in.

Conferences sponsored by Literacy Works, the Developmental Education Association of Maryland, and the Maryland Association for Adult Community and Continuing Education allowed staff members to network with other adult educators about workplace literacy concerns. At the MAACCE Conference, the program coordinator presented two workshops on "Best Practices for Increasing Learner Retention" and "Curriculum Development for a Manufacturing Environment." Idea sharing, person to person, gave the staff a fresh perspective on the program and provided much praise and appreciation important for the morale of the staff.

OTAN, or the Outreach Technical Assistance Network, provided an online communication and archive system for adult education from California. Staff used OTAN to communicate advice or encouragement to other workplace literacy programs. It also provided an opportunity to read the latest research on adult education or workplace literacy practices.

The Maryland State Department of Education used the program coordinator on a working committee to write lessons for another database network called Instructional Framework of Best Practices in Adult Education. The program coordinator submitted three lessons from the Workplace Skills Enhancement Program's Curriculum which were chosen for dissemination. These were lessons on "Orientation to the Classroom," "Writing a Job Narrative," and "Writing and Reading Directions."

In November 1992l, the coordinator presented a session on the Pelavin Study: A Model for Professional Development in Adult Education Programs." at the College Reading Association in its Adult education Division. The coordinator also presented a session on the topic of "Motivation and Learner Retention Strategies" at the Literacy Works' Professional Development Institute.

Essex Community College plans to send this dissemination report to ERIC's new literacy clearing house. The Essex Project Co-Director and the WSEP Coordinator will continue to speak and support the workplace literacy initiative by collaborating with Literacy Works of Baltimore County, and the other local community colleges which include: Dundalk Community College and Catonsville Community College.

WSEP DATABASE FIELDS

LAST NAME	FIRST NAME	ADDRESS	CITY/STATE	ZIPCODE	SOC. SEC. #	DEPT. #	BADGE #	SHIFT	EXT. #	HOME PHONE	AGE	SEX	RACE	NO. HOUSEHOLD #	YRS. W/CO.	JOB TITLE

SUPERVISOR	COUNSELED	ASSESSMENT SU91/Reading	ASSESSMENT SU91/Math	PRE-TEST SU91/Reading	PRE-TEST SU91/Math	PLACED SU91	OUTCOMES	POST-TEST SU91/Reading	POST-TEST SU91/Math	COUNSELED

ASSESSMENT F91/Reading	ASSESSMENT F91/Math	PRE-TEST F91/Reading	PRE-TEST F91/Math	PLACED F91	OUTCOMES	POST-TEST F91/Reading	POST-TEST F91/Math	COUNSELED	ASSESSMENT S92/Reading	ASSESSMENT S92/Math

PRE-TEST S92/Reading	PRE-TEST S92/Math	PLACED S92	OUTCOMES	POST-TEST S92/Reading	POST-TEST S92/Math	COUNSELED	ASSESSMENT SU92/Reading	ASSESSMENT SU92/Math	PRE-TEST SU92/Reading

PRE-TEST SU92/Math	PLACED SU92	OUTCOMES	POST-TEST SU92/Reading	POST-TEST SU92/Math

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WORKPLACE SKILLS ENHANCEMENT PROGRAM

CURRICULUM WITH SAMPLE LESSONS

BY ESSEX COMMUNITY COLLEGE STAFF

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WORKPLACE SKILLS ENHANCEMENT PROGRAM CURRICULUM OVERVIEW

Introduction

Some unique environmental factors influenced the class structure, instructional formats, and skills which were used in WSEP classes. Because of differing worker schedules, the staff had to adjust to the staggered entrance and staggered exit of learners. Class time was organized in a three-hour time slot with all of the workers present for the second hour. This allowed for small and large group instruction, while individualized instruction could occur in the first and third hour of class time.

The instructional staff received suggestions for class time management which included how to organize learning activities. They also adapted methods for learner assessment in the form of portfolio, notebook, or job book development.

Specific instructional practices were promoted in all classes to insure that workplace skills were targeted. The academic counselor developed a dictionary of technical vocabulary with sample activities which could be adapted for any learner who demonstrated a need for language instruction. Instructors also promoted learning communication, listening, concentration, and problem solving skills which are so necessary on the job. To assist learners in adjusting to the learning environment, each instructor was encouraged to teach an orientation lesson which included an ice breaker, needs and job assessment and an IEP portfolio chart. Extensive interviewing of the learner by the instructor insured that the Individualized Education Plan reflected the learner's needs as a worker.

Furthermore, the academic counselor also scheduled each semester personal development workshops which included stress and time management on the job,communication strategies for the job, and test-taking and note taking skills for certification classes. These workshops reinforced important relational as well as technical skills so necessary in a team-centered and technology-centered workplace.

In order to understand better how this curriculum was written, take into consideration the staff diversity and the corporate constraints. While each instructor contributed workplace specific lessons to this curriculum, each had a particular preference for lesson format and style. Therefore, some inconsistency in lesson organization exists due to the individual differences of an instructor's approach to lesson planning. Even though many workplace specific documents had to be deleted or revised in format or fact, any lesson may be adapted to the workplace by substituting documents from another manufacturing environment. Finally, it was the decision of the college administrators not to use union documents due to the sensitive nature of employee relations and collective bargaining.

Class Structure and Instructional Formats

- Suggested Class Structure for Each Week:
  - First Class of the Week:
    - First Hour
      - Journal Writing as a Transitional Activity
      - Math or English Drill
      - Instructor/Learner Collaboration on IEP
    - Second Hour
      - Large/Small Group Instruction
    - Third Hour
      - First Group Leaves
      - Second Group Does Writing, Drill, or IEP

  - Second Class of the Week:
    - First Hour
      - Writing with Workplace Related Scenarios
      - Instructor/Learner Collaboration on IEP
    - Second Hour
      - First Group to the Computer Lab
      - Second Group Works on Writing and IEP
    - Third Hour
      - Second Group to the Computer Lab

Suggested Class Schedule

Reading and Writing

Time	Activity
1 hour	journal writing small group work
10 minutes	break
20	large group instruction
30	independent study IEP development

Math

1 hour	skill review independent study small group work
10	break
20	large group instruction
30	IEP dev./small group

Skills Promoted in All Classes

Keys to Improving Communication

*Identify the techniques or organization patterns of the speaker.
*Anticipate the next main idea of the speaker.
*Feedback previous ideas to check for clarity.
*Identify the supporting details.
*Search for deeper meaning or for feeling by observing body language.

Keys to Enhancing Listening Skills

*Be open and prepared to listen.
*Listen in a courteous, attentive manner.
*Determine how this information will be of value to you.
*Reserve judgment until you have time to evaluate the information.
*Use notetaking whenever possible.
*Look up words you don't understand and check your facts.
*Be flexible and ask questions when it is appropriate.
*Control your reaction and use feedback to plan your response.

Problem Finding Problem Solving Skills

Instructional Model:

1. Identifying and defining the problem
2. Collecting information from a variety of sources
3. Restating the problem in a solvable form
4. Evaluating barriers to solution
5. Seeking information from support personnel
6. Developing several alternatives for solution
7. Seeking acceptance from those in authority
8. Implementing the approved plan
9. Evaluating its usefulness

Subjects and Skills Needed According to Work Area

Area	Suggested Subject and Skill
General	Place value, whole number for estimation and proportion
Assembly/ Machinist	Decimals for reading scales, micrometers, verniers, and blue prints
Maintenance, Painting, Assembly, Heat Treat	Ratios and proportions
Crane Operators	Formula for finding weight of the object lifted

ORIENTATION CLASS

LESSON 1

INTRODUCTION

The first lesson may make or break a workbased education class. Although many adult learners have demonstrated great resourcefulness in life and success in the workplace, they frequently approach the classroom with apprehension. A good orientation lesson will ease learner tensions, introduce the instructor as facilitator, and encourage cooperative learning.

STATE OUTCOMES

1. Learners will reflect upon their return to the classroom.

2. Learners will participate in a discussion on thinking about learning.
3. Learners will recognize the instructor as a facilitator among peers in contrast to the sole expert in the classroom.

TITLE: THINKING ABOUT LEARNING

Level: Multi-level/Heterogeneous grouping

Duration: One to two hour class

Objectives:

1. The learners will demonstrate their ability to interact with others in a group discussion.
2. The learners will identify prior knowledge or experiences relating to learning.
3. The learners will identify
    - A. Their roles and responsibilities as a learner
    - B. Their expectations of the teacher

Materials:

Chalk board and chalk (or)
Easel or chart paper and marker
"Getting to Know You Survey"

I Lesson Development

Teacher Introduction: Ice Breaker

- A. Tells name
- B. Ideally uses humor to relax and promote a transition between the workplace and the classroom
    1. Anecdote, quotes
    2. Cartoons, about learning
    3. Funny new story, statistics
    4. Ideally associate it to the learning

II Share Objectives with the Learners

- A. Teacher writes learner objectives on the board
    1. To discuss past experiences about learning

    2. To practice communication skills (speaking and listening) in a group.
    3. To help switch gears from the workplace to class.
  - B. Teacher discusses objectives with the learners
    1. Discuss how past experiences might affect current attitudes toward learning.
    2. Communication Skills are vital in today's workplace settings:
       - a. teambuilding
       - b. problem solving
       - c. active listening
    3. Switching Gears
       - a. to promote stress reduction
       - b. to recognize the changing of roles from worker to learner

III Individual Introductions of the Group
- A. Teacher models by telling his/her name and something about his/her job.
- B. Go around the room an allow introductions
- C. Try to learn as many names as possible by taking notes

IV "Getting to Know You" and Discussion
- A. Teacher distributes survey and relates it to the objective
- B. When most learners have completed, teacher initiates groups discussion. (Each learner may pick one answer to share with the group)
  1. Teacher models by sharing an answer.
  2. Learners who feel comfortable doing so, share one answer.
  3. Encourage active participation but recognize the validity of passive (listening) participation in this first session. Give each learner the right to pass.
  4. Many adults in this first class are "testing the waters" to see if the environment is safe.

V Closure/Evaluation
- A. Teacher returns to the objectives and relates to the class the activities just completed. Teacher then asks: "What did you all learn from today?" Teacher records all responses on the board, emphasizing the link between past experiences and present attitudes.
- B. Teacher collects "Getting to Know You Survey" (Some learners who may not have completed it will need more time finish. It is better to finish this in class than to have them complete it at home.)

GETTING TO KNOW YOU

DIRECTIONS: Answer the following questions so that I can get to know you as a person. Feel free to write in phrases or sentences and give as much detail as you wish.

1. What was your favorite subject in school? Why did you like it so much?

2. Describe your least favorite teacher. Explain why you didn't like him/her?

3. Why are you taking this class and what do you hope to achieve by the end of it?

4. How much time will you be able to spend on study/homework during the week?

5. What might get in the way of your attendance? Is there anything you can do now to prevent you from missing a lot of time or dropping out?

6. What would you like to be doing 5 years from now in terms of work or education?

7. What do you expect from me as your instructor?

WRITING SAMPLE

NAME:
DATE:

TITLE: ____________________

WORKPLACE SKILLS ENHANCEMENT PROGRAM
JOB-NEEDS ASSESSMENT

NAME: ____________________________

JOB TITLE: ________________________________

DESCRIBE THE MAIN TASKS YOU PERFORM: ____________________

____

____

____

____

____

WHAT MATH SKILLS DO YOU USE? ________________________________

____

WHAT WRITING SKILLS DO YOU USE? ______________________________

____

____

WHAT COMMUNICATION SKILLS DO YOU THINK YOU NEED IMPROVEMENT?

____

____

____

WHAT KIND OF READING DO YOU DO ON THE JOB? ___________________

____

____

WHAT CERTIFICATION CLASSES DO YOU TAKE? ______________________

____

____

WOULD YOU FIND NOTE TAKING AND TEST TAKING SKILLS HELPFUL IN ORDER TO PASS THESE CLASSES? ______________________________________

LIST ANY OTHER SKILLS/INFO. THAT WOULD HELP YOU TO PERFORM YOUR JOB WELL: ____

____

____

WORKPLACE SKILLS ENHANCEMENT PROGRAM

NEEDS ASSESSMENT

1.COURSE TITLE ______________________________

2. EXPLAIN BRIEFLY WHY YOU ENROLLED IN THIS CLASS:

____

____

____

____

3. IS THE CLASS MEETING YOUR NEEDS? EXPLAIN:

____

____

____

4. LIST THE TYPE OF MATERIAL YOU WOULD LIKE TO SEE PRESENTED IN THIS CLASS:

A. ____

B. ____

C. ____

D. ____

5. WHAT TECHNIQUES OR TEACHING METHODS DO YOU THINK WOULD BE MOST BENEFICIAL TO YOU? (SOFTWARE, WORKBOOKS, GROUP WORK, TUTORING, TAPES, ETC.)

A. ____

B. ____

C. ____

YOUR NAME: __________________________________

INDIVIDUALIZED PLAN OF STUDY FOR CLASS IV

FOR: ________________________________

SESSION: ____________________________

MATH:

GRAMMAR:

WRITING:

READING:

IEP ASSIGNMENT SHEET

DATE	GOAL/TASK	TEXT/PROGRAM	SKILL PRACTICED

INTRODUCTION TO TECHNICAL VOCABULARY

Each year, workers must be certified to work in certain areas or use particular equipment. In effort to assist workers in acquiring technical vocabulary and assist instructors in facilitating that process, a comprehensive list of technical words and terms were collected and disseminated. Instructors were given a sample of pretest, post test and goals for the hearing Conservation Recertification in order to suggest an approach to teaching vocabulary (an instructional aid). However, instructor were encouraged to alter and adapt the aid in order to fit the need of the learner.

PRETEST FOR UNDERSTANDING VOCABULARY FROM THE HEARING CONSERVATION RECERTIFICATION TEST

A. Circle **Y** for **yes** or **N** For **no** if the meaning of the underlined word can be found in the same sentence.

1. Sound travels through the air in pressure waves. Y N

2. The air vibrates or moves with a fast to and fro motion like a rubber band when it is stretched and plucked. Y N

3. The decibel at which a you can hear sound is called the Hearing Threshold. Y N

B. Underline the prefix (first syllable) in the following words:

exposure intensity distorted

C. Fill in the blank with the word which makes the most sense in the sentence.

Words: overexposed permanently prior

nerve cells conservation irritability

1. ______________ to working in a noisy area, Jim's hearing was perfect.

2. Hearing _________________ of employees is an important concern of the company.

3. Exposure to loud noise for 8 hours a day can _______________ damage hearing.

4. Loud noise also causes_______________________.

5. ________________________are hair-like structures in the inner ear.

6. A person suffers a hearing loss when she/he has been _______________ to loud noise.

WORKPLACE SKILLS ENHANCEMENT PROGRAM

TECHNICAL VOCABULARY IN CONTEXT

Technical Vocabulary from Hearing Conservation Recertification

GOALS:

1. Participants will learn three types of context clues which will help them to understand technical terms in their reading: restatement, explanation, and definition.

2. Participants will be able to use a dictionary to define words they are unable to define by using context clues.

3. Participants will learn the prefixes over, ex, deci, in, ir, dis, and con.

4. Participants will make a glossary of the terms from this lesson which they feel they would have difficulty remembering.

VOCABULARY	CONTEXT
overexposure	Overexposure for a long time to very loud noise can cause a hearing loss.
exposed permanently	Any sound we are exposed to that is too loud, for too long a time can permanently damage our hearing.
exposure	Repeated exposure to very loud sounds may cause permanent damage to the nerve cells of the inner ear.
nerve cells	Nerve cells are hair like cells in the inner ear which send electrical signals to the brain. The brain translates these electrical signals into words of conversation, music, and noises we hear.
waves vibrates, vibrations	Sound travels through the air in pressure waves. This kind of wave means the movement of energy from one place to another. The air vibrates or moves with a fast to and fro motion like a rubber band when it is stretched and plucked.
DECIBELS (dB)	DECIBELS are a unit for measuring sound. Any sounds 90 dB have the potential to permanently damage the nerve cells in the inner ear.
intensity	Intensity of a sound is also important in determining the exposure levels. When intensity doubles, the sound level

generate	increases by 3 dB. For example, a truck driving down the highway would generate a dB of 90. Two trucks driving side by side down the highway would generate an intensity which would measure 93 dB to the person hearing the noise.
irritability	Constant exposure to loud sounds may cause irritability, high blood pressure, anxiety, tension, and sleepiness in addition to hearing loss.
induced gradual	Because noise induced hearing loss is painless and gradual, by the time someone is aware of a loss it is often too late.
Hearing Threshold	At the age of 20 the softest sound a person can hear is close to zero DECIBELS. The DECIBEL at which a person can hear sound is called the Hearing Threshold.
frequencies distorted	If a person loses the ability to hear high frequencies, everything would sound low, dull, and distorted.
Conservation	A Hearing Conservation Program will be started for all employees exposed to greater than 85 dB for an 8 hour day.
prior device	On the day of the annual hearing test the employee must wear an ear protection device prior to taking the test.

POST TEST FOR UNDERSTANDING VOCABULARY FROM

HEARING CONSERVATION RECERTIFICATION

A. Write an R for restatement, E for explanation, or a D for definition in the blank after the sentence which describes the context clue used to clarify the meaning of the underlined word in the sentence.

1. DECIBELS are a unit for measuring sound. __________

2. Because noise induced or caused hearing loss is painless by the time someone is aware of a loss it is often too late. __________

3. The softest sound a person can hear is called the Hearing Threshold. __________

4. Because he worked for 8 hours a day hearing the slamming noise of the drop hammer, Bill was overexposed to loud nose. __________

5. The air vibrates. In other words it moves fast with a to and fro motion. __________

B. Match the Meaning with the Prefix

1.	ir	_____tenth
2.	con	_____opposite of; lack of; not
3.	over	_____out of
4.	deci	_____into, within; not, the opposite of
5.	ex	_____form of prefix “in”
6.	dis	_____with
7.	in	_____above

Post Test On Hearing Conservation - 2

C. Fill in the blank with the word that makes the most sense in the sentence.

Words: prior device Conservation Hearing Threshold frequencies gradual generate irritability decibels intensity overexposure nerve cells exposure permanently exposed waves vibrates vibrations irritability distorted

__________for a long time to very loud noise can cause a hearing loss. What happens is that the hair like __________ __________ of the inner ear become damaged. __________ are a unit for measuring sound. Any sounds measuring 90 decibels may __________ damage the nerve cells in the inner ear. A yearly test is given to all employees who have repeated __________ to very loud sounds in their workplace. Intensity of a sound is also important in determining exposure levels. When __________ doubles, the sound level increases by 3 dB. Two trucks driving side by side down the highway would __________ an intensity which would measure 93 dB to the person hearing the noise. The softest decibel a person can hear is called the __________ __________. If a person loses the ability to hear high __________, everything would sound low, dull, and __________.

Noise __________ hearing loss is painless and __________. A Hearing __________ Program is in effect for all employees exposed to sound greater than 85 decibels for an 8 hour day.

EXPLOSIVE SAFETY VOCABULARY

Vocabulary:

1.	retract	draw back or in.
2.	thrust	push with force.
3.	piston	a round piece of wood or metal fitting closely inside a tube in which it is moved back and forth by the force of combustion.
4.	combustion	the act of burning.
5.	explosive	a material or several materials capable of producing an explosion by its own energy.
6.	explosion	a chemical reaction of any chemical compound or mechanically mixed compound which when initiated releases highly heated gasses and exerts pressure on surrounding medium.
7.	initiated	started.
8.	detonation	instantaneous, violent chemical reaction within a compound or a mechanical mixture caused by heat and pressure; a blast.
9.	instantaneous	happening in an instant.
10.	deflagration	a rapid chemical reaction to heat.
11.	high explosives	detonate; examples: dynamite and TNT.
12.	low explosives	deflagrate or burn rather than detonate; examples: rocket motors and gun powder.
13.	explosive train	explosive elements arranged in order of the most to the least sensitive.
14.	initiator	device used as the first element of an explosive train. It is also called an elector-explosive device (EED).
15.	booster	an assembly of metal parts and an explosive charge provided to augment the explosive component of an

		initiator. Its purpose is to ensure complete ignition.
16.	main charge	a given quantity of an explosive used as a propellant. It is the least sensitive charge in an explosive train.
17.	propellant	driving force such as fuel.
18.	electro-explosive device (EED)	device which is ignited by electricity. Ignition may be instantaneous or delayed.
19.	squib	small explosive device which creates heat flash. Used for small size pyrotechnic or explosive devices.
20.	pyrotechnic	explosive; having to do with fireworks.
21.	augment	increase, to make lager.
22.	brisance	a measure of how rapidly an explosion develops under maximum pressure.
23.	supersonic	moving faster than sound.
24.	velocity	speed
25.	compound	having more than one part; several parts forming to make one single structure.
26.	distinct	not the same; different in quality or kind; easily seen or heard; unmistakable.
27.	auxiliary	giving help or support.
28.	abnormal	irregular; away from the normal; distinct from standard condition.

Prefixes:

ab = from; away; away from; off

ex = out of (as in exit); formerly or former; thoroughly (as in exterminate)

super = over; above; besides, further; superior to the normal (superman)

Some Words in Context:

1. Some explosives are classified as propellants.
2. Auxiliary explosives are the same as booster charges.
3. Instantaneous combustion can cause an explosion.
4. Brisance is a measure of how rapidly an explosion develops under maximum pressure.
5. The supervisor asked what initiated the detonation.
6. An initiator is the device used as the first element of an explosive train.
7. A booster is a charge provided to augment the explosive component of the initiator.
8. A rocket needs thrust to lift off into space.
9. President Bush wishes he could retract some of his campaign statements.
10. Deflagration is a rapid chemical reaction to heat.
11. Fireworks could be called a pyrotechnic display.
12. Some materials are so explosive that they can detonate with supersonic velocity.

Spelling Patterns:

booster
rooster
goose
booth
coolant

augment
auxiliary
audition
auction
audit

supersonic
superior
superficial
superhuman
superintendent

pyrotechnic
pyromaniac

abnormal
abbreviate
abduct
ablate
abject

Explosive Safety Vocabulary - 4

Spelling Patterns:

oo	au	super	pyro	ab
foothold	august	superstition		abscond
hooligan	austere	supervision		absent
loophole	audience	superimpose		absolute

VOCABULARY FOR HAZARDOUS COMMUNICATION/RIGHT TO KNOW

Vocabulary List:

1.	hazardous	full of risk; dangerous.
2.	flash point	temperature at which a substance is capable of burning.
3.	anesthetic	agent causing part or total loss of sensation.
4.	sensation	feeling through senses of seeing, hearing, touching, tasting, and smelling.
5.	carcinogen	any substance or agent causing cancer.
6.	adverse	harmful; unfavorable.
7.	corrode	eat away gradually by chemical action.
8.	tetrahedron	a four sided figure.
9.	combustible	will burn if it gets hot enough.
10.	flammable	easily set on fire.
11.	Fahrenheit	based on a scale for measuring temperature on which 32 degrees marks the freezing point of water and 212 degrees marks the boiling point of water.
12.	vapor	moisture in the air that can be seen, such as steam, fog, mist, usually due to the effect of heat upon a liquid; gas formed from a substance that is usually a liquid or a solid.
13.	concentration	amount of substance contained in a given quantity of a solution or mixture.
14.	substance	material; the real, main, or important part of anything.
15.	toxicity	potential of a substance to cause harm.
16.	dose	how long or how much exposure to a substance.
17.	response	effect of dose plus toxicity of a substance.

Vocabulary for Hazardous Communication - 2

18.	uninhibited	not held back or restrained.
19.	chain reaction	any series of events, each caused by the one before.
20.	threshold	beginning point
21.	threshold limit value	level of potentially harmful chemicals to which nearly all people can be exposed with no adverse response.
22.	exposure	being in close contact with a harmful substance without protection.
23.	adequate	as much as is needed.
24.	ventilation	act of supplying with fresh air.
25.	prolonged	make longer; extend time.
26.	compiled	collect and bring together in one place.
27.	oxidizer	a substance that supports the combustion of fuel.
28.	precautions	care taken beforehand.
29.	percentage	a part of a hundred.
30.	disposal	getting rid of something.

Prefix:

un = not - as in uninhibited; the opposite of - as in uncover.

Vocabulary for Hazardous Communication - 3

Some Words in Context:

1. A tetrahedron is a four sided figure.
2. An anesthetic causes a total or partial loss of sensation.
3. Some hazardous chemicals are carcinogens.
4. Fahrenheit is a scale for measuring temperature.
5. You should use some chemicals only with adequate ventilation and avoid prolonged or repeated breathing of vapor.
6. Exposure to a chemical does not produce an adverse response, but over-exposure can produce an adverse response.
7. Waste disposal methods are listed in the Material Safety Data Sheets, MSDS.
8. An oxidizer is a substance that supports the combustion or burning of fuel.
9. Adequate precautions should be taken when handling hazardous materials.
10. In an Upper Explosive Limit the concentration of vapor is greater than the concentration of air. An example of an Upper Explosive Limit is the flooded car engine.

Synonyms:

1.	hazardous	dangerous
2.	sensation	sense
3.	adverse	hostile, unfavorable
4.	corrode	rust, waste, crumble
5.	combustible	flammable
6.	concentration	intensification
7.	substance	material
8.	toxic (toxicity)	poison (poisonous)

VOCABULARY FOR SOLDER (MIL - S - 2000) RECERTIFICATION

Vocabulary List:

1.	tinning	coating with tin to prevent corrosion.
2.	cycle	a period of time or complete process of growth or action that repeats itself in the same order.
3.	crystalline	solidified in the form of crystals; sugar and salt are examples of crystals.
4.	turret	a small tower on the corner of a building; an attachment on a lathe, drill, etc., to hold cutting tools.
5.	maximum	the largest or highest amount.
6.	segment	a piece or part; division; section.
7.	defect	a flaw; fault; blemish.
8.	documented	to prove or support by means of written information.
9.	minimize	reduce to the least amount.
10.	flexibility	has the ability to be easily bent, twisted, or shaped.
11.	obscuring	hiding from view.
12.	insufficient	lacking in what is needed.
13.	clearance	the distance between things that pass by each other without touching.
14.	precision	accuracy; exactness.
15.	discoloration	change in color; stained.
16.	eutectic solder	low melting point solder.
17.	radius	the length of a line from the center to the outside of a circle.
18.	dwell	to put stress on.
19.	diameter	a line passing from one side of a circle, through the center,

		to the other side.
20.	whichever	any one that.
21.	excessive	too much; too great; going beyond what is necessary or right.
22.	protrusion	something that sticks out.
23.	disturbed	put out of order; destroy the peace, quiet, rest of.
24.	visibly	readily seen.
25.	deformation	act of spoiling the form or shape; disfigurement.
26.	contour	outline of a figure; line that defines or bounds anything.
27.	convex	curved out like the outside of a circle.
28.	concave	hollow and curved like the inside of a circle.

Antonyms:

maximum	minimum
protrusion	intrusion
convex	concave

Prefixes:

de	defect deformation	**ex**	excessive	**pro**	protrusion
con	contour convex concave	**in**	insufficient	**eu**	eutectic

Vocabulary for Soldering Recert. - 3

Words in Context:

1. Tinning prevents corrosion.
2. Sugar and salt are described as crystalline.
3. Too much solder can pile up like a turret.
4. The maximum or largest amount taken out of my pay check is for taxes.
5. This segment shows a defect.
6. Her clearance to work on classified information is documented.
7. Excessive eating makes you sick.
8. It is easier to carve wood if you follow the contour of the grain.
9. He was disturbed by the insufficient light, because he could not see to read his newspaper.
10. Too much solder was obscuring the wire.

Spelling Patterns:

cycl	crys	eu	ever
cycle	crystalline	eutectic	whichever
cyclamate	crystal	eulogy	whatever
cyclic	crystallize	euphemism	whomever
bicycle		Europe	however
cyclist		euphoria	whosesoever
Cyclops		Eurasia	whoever
cyclone		eucalyptus	
cyclorama		euthanasia	

VOCABULARY FOR RESPIRATORY SAFETY RECERTIFICATION

Vocabulary List:

1.	potentially	something that is a possibility; capable of coming into being or action.
2.	substituting	one thing used instead of another; one person taking the place of another.
3.	designs	a drawing, plan, or sketch, made as a pattern from which to work.
4.	engineering	science, work, or profession of planning, building, or managing engines, machines, roads, mines, electrical systems, chemical plants.
5.	deficiency	lack of something needed or required.
6.	disposable	items made to be used once and discarded or thrown away.
7.	oxygen	colorless, tasteless gaseous element; an element in the air we breathe which makes up 1/5 of the atmosphere.
8.	reusable	an item which can be used again.
9.	self-contained	having all its working parts contained or held in one case, cover, or framework; for example, a watch.
10.	respiratory	having to do with breathing.
11.	invisible	not easily see.
12.	mechanical	made or worked by machinery.
13.	exhaust	the escape of steam, gases; the pipe or other means through which air passes.
14.	ventilation	change of air; the act or process of supplying with fresh air.
15.	particles	a very little bit.
16.	contaminants	something that pollutes.
17.	moderate	keeping within proper bounds.

Vocabulary for Respiratory Safety - 2

18.	airborne	supported by the air; carried by air.
19.	hovers	hangs suspended in air.
20.	solvent	a substance usually a liquid that can dissolve (change to a liquid or clear away) another substance.
21.	evaporates	change from a liquid to a vapor.
22.	toluene	colorless, flammable liquid with a smell like benzene that is obtained from coal and petroleum and is used as a solvent and for making explosives.
23.	sorbents	trap and hold gases or vapors as you breathe through filters.
24.	chronic	lasting a long time.
25.	penetrate	enter into or pass through.
26.	irritate	make sore or very sensitive.
27.	absorb	to take in or suck up a liquid or a gas.
28.	clogged	fill up; choke up; hold back.
29.	receptacle	container
30.	breakthrough	an important achievement or solution of a major problem preventing or hindering a scientific or technical undertaking.
31.	specifications	detailed descriptions of the dimensions, materials; statement of the requirements.

Root Word

chronos	time

chronic

Vocabulary for Respiratory Safety - 3

Spelling Patterns:

chron	ign	self-	air	break
chronic	design	self-contained	airborne	breakthrough
chronology	sign	self-confident	airplane	breakfast
chronicle	align	self-control	aircraft	breakage
chronology	benign	self-esteem	airless	breaker
			airy	breakout

Prefixes:

ex	exhaust	**sub**	substituting	**in**	invisible
de	deficiency	**ir**	irritate		

Words in Context:

1. A watch is a mechanical device that is self-contained.
2. An Oxygen deficiency which occurs in a confined space is caused by a chemical reaction or fire.
3. Sorbents trap and hold gases or vapors as you breathe through filters.
4. Do you prefer to wear disposable or reusable respiratory masks?
5. Gases and vapors are invisible hazards.
6. When the ventilation is not good, I feel sleepy and yawn a lot.
7. Have you thought about substituting corn oil for margarine when you bake?
8. Airborne particles like dust, fumes, and mists are potentially hazardous.
9. Gases and fumes are contaminants.
10. Toluene is a solvent.
11. Constant exposure to toxic fumes without the proper protection can cause chronic health problems.
12. It is difficult for dust and fumes to penetrate a properly fitted respiratory mask.

VOCABULARY FOR ELECTROSTATIC DISCHARGE CERTIFICATION COURSE

Vocabulary List:

1.	destructive failure:	component failure in electronic hardware assemblies due to discharge of static electricity.
2.	circuit:	the complete path over which an electrical current flows.
3.	comply:	act in agreement with request or command.
4.	reliable:	worthy of trust.
5.	potential:	electric force; voltage. The potential of a point is the energy needed to give the point an electric charge.
6.	designated:	point out.
7.	grounded:	connection of an electrical conductor with the earth.
8.	components:	a necessary part.
9.	totes:	a large bag for carrying.
10.	degraded:	broken down.
11.	puncturing:	making a hole with something pointed.
12.	antistatic:	prevents electrical discharge.

Some Words In Context:

1. "Electricity rapidly moves from the higher to the lower potential (like water leveling itself)."
2. Access to a designated electrostatic area is possible.
3. You are grounded when you connect your wrist strap to your work station.
4. Two components of the wrist strap assembly are the strap and the cord.
5. Uncovered totes and antistatic bags are examples of secondary packaging.
6. Any component which can be damaged or degraded is called electrostatic

sensitive.

7. Static Shielding bags are used to cover sharp edges of hardware to prevent puncturing of the primary package.

8. The destructive failure of a circuit in hardware assemblies is often due to electrostatic discharge.

9. To avoid ESD workers must comply with the regulations.

10. A wrist strap must be tested each time you connect it to a work station to prove that it is reliable.

Prefixes:

re anti circ de com

Patterns for Spelling:

STRUCT	CIRC	LIABLE	POTENT	OUND
destructive	circle	liable	potent	grounded
destruct	circuit	reliable	potency	mounded
instruct	circular	unreliable	potentate	pounded
instructive	circulate	liability	potential	rounded
structure	circulation		potentiality	sounded
construct	circulatory			founded
reconstruct	circumference			hounded
constructive	circumstance			bounded

VOCABULARY FOR SECURITY BRIEFING RECERTIFICATION

Vocabulary List:

1.	**classified**	documents which are confidential; arranged in order.
2.	**storage**	place for keeping documents or items.
3.	**retention**	ability to hold or keep; ability to remember.
4.	**retain**	continuing to hold or keep; remembering.
5.	**transmission**	passing along; sending over; letting through.
6.	**automated**	machine operating, moving, or regulating itself.
7.	**ethical**	having to do with standards of right and wrong.
8.	**accountable**	responsible
9.	**CMMC**	Classified Materials Management Center
10.	**originator**	person who causes an event or action to occur. Ex. Thomas Jefferson was one of the originators of the Declaration of Independence.
11.	**safeguarded**	protected against harm.
12.	**tentative**	done as an experiment; hesitating.
13.	**authorized**	given permission.
14.	**ally**	person, group, or nation united with another for some special purpose.
15.	**assurance**	a statement to make a person feel more sure or certain; security.
16.	**subcontract**	contract for carrying out a previous contract.
17.	**interplant**	together with or between plant buildings.
18.	**intoxicants**	anything that makes a person drunk, excited, or sick; poisons.

Vocabulary for Security Briefing - 2

19.	**courier**	messenger sent in haste; secret agent who transfers information to and from other agents.
20.	**destination**	place to which a person or thing is going or is being sent.
21.	**compromise**	settle a dispute by agreeing that each will give up a part of what he or she demands.

WORDS IN CONTEXT:

A courier is authorized with the transmission of classified documents interplant. Classified documents are safeguarded in storage. A courier must not compromise his or her position of trust by taking intoxicants. Our ally, the originator of the subcontract, wants the assurance that we will be accountable for sending the subcontract to its proper destination. Documents are retained in CMMC. If we are not ethical in retaining classified documents, our ally will feel tentative about authorizing us to safeguard its contracts and subcontracts for automated machine robots. No compromise can be made where security is concerned.

WORDS THAT CAN BE USED AS NOUNS AND VERBS:

Nouns	**Verbs**
retention	retain
transmission	transmit
accountable	account
originator	originate
assurance	assure
compromise	compromise

Prefixes:

auto **(self)**	**com** **(with, together)**	**sub** **(under, lower, near)**	**inter** (between)
automated	compromise	subcontract	interplant
automobile	compassion	subconscious	interlock

Vocabulary for Security Briefing - 3

SPELLING PATTERNS: INTER

1. interplant
2. interlock
3. interject
4. interlace
5. interlude
6. intermarry
7. intermission
9. intermediate
10. intermingle

TECHNICAL VOCABULARY

ablative	melting or disintegrating of a nose cone of a missile; removal.
abnormal	irregular; away from the normal; distinct from standard condition.
absorb	to take in or suck up a liquid or a gas.
accidental	not intended.
accordance	agreement; harmony.
accountable	responsible
accurate	without errors or mistakes because of the care taken to avoid them.
adequate	as much as is needed.
adverse	harmful; unfavorable.
agricultural	farming.
airborne	supported by the air; carried by air.
allegations	making a charge without proof.
ally	person, group, or nation united with another for some special purpose.
alteration	change in appearance; form; or condition.
aluminum	light weight metal, excellent conductor of electricity.
amendments	changes made in law or bill.
anesthetic	agent causing part or total loss of sensation.
antistatic	prevents electrical discharge.
aquatic	growing or living in water.

TECHNICAL VOCABULARY

asphyxiants	that which causes suffocation or unconscious condition caused by lack of oxygen and an excess of carbon dioxide in the blood as in choking or drowning.
assurance	a statement to make a person feel more sure or certain; security.
assuring	tell confidently or positively; make sure or certain; make safe; secure; insure against loss.
augment	increase, to make lager.
authorization	process of granting permission.
authorized	given permission.
autoclaves	strong closed vessel which develops super heated steam under pressure.
automated	machine operating, moving, or regulating itself.
auxiliary	giving help or support.
beneficial	good, helpful, favorable.
biological	of living organisms.
booster	an assembly of metal parts and an explosive charge provided to augment the explosive component of an initiator. Its purpose is to ensure complete ignition.
breakthrough	an important achievement or solution of a major problem preventing or hindering a scientific or technical undertaking
brisance	a measure of how rapidly an explosion develops under maximum pressure.
canister	small box or can.
carcinogen	any substance or agent causing cancer.
catastrophic	caused by a disaster.
caustics	substances that burn or destroy flesh; corrosive (ex. lye).

TECHNICAL VOCABULARY

certification	receiving an official document of accomplishment.
chain reaction	any series of events, each caused by the one before.
characteristics	qualities, features, traits.
chemical	substance obtained or used in scientific process.
chlorinated	combined or treated with chlorine which is used in making plastics.
chronic	lasting a long time.
circuit	the complete path over which an electrical current flows.
classifications	process of arranging materials / substances in groups.
classified	documents which are confidential; arranged in order.
clearance	the distance between things that pass by each other without touching.
clogged	fill up; choke up; hold back.
CMMC	Classified Materials Management Center
combustible	will burn if it gets hot enough.
combustion	the act of burning.
compiled	collect and bring together in one place.
comply	act in agreement with request or command.
complying	act in agreement with request or command.
components	a necessary part.
compound	having more than one part; several parts forming to make one single structure.
compromise	settle a dispute by agreeing that each will give up a part of what he or she demands.

TECHNICAL VOCABULARY

concave	hollow and curved like the inside of a circle.
concentration	amount of substance contained in a given quantity of a solution or mixture.
condensate	to make more compact.
conductive	having the ability or power to transfer energy from one particle to another; transmission of heat or electricity.
Conservation	protect from harm.
contaminants	something that pollutes.
contour	outline of a figure; line that defines or bounds anything.
convex	curved out like the outside of a circle.
coolant	substance used to reduce heat in machinery.
corrode	eat away gradually by chemical action.
corrosive	producing corrosion.
courier	messenger sent in haste; secret agent who transfers information to and from other agents.
crystalline	solidified in the form of crystals; sugar and salt are examples of crystals.
cycle	a period of time or complete process of growth or action that repeats itself in the same order.
DECIBELS (dB)	DECIBELS are a unit for measuring sound. Any sounds 90 dB have the potential to permanently damage the nerve cells in the inner ear.
defect	a flaw; fault; blemish.
deficiency	lack of something needed or required.
deflagration	a rapid chemical reaction to heat.
deformation	act of spoiling the form or shape; disfigurement.

deformation	spoiled form or shape.
degraded	broken down.
designated	point out.
designs	a drawing, plan, or sketch, made as a pattern from which to work.
destination	place to which a person or thing is going or is being sent.
destructive failure	component failure in electronic hardware assemblies due to discharge of static electricity.
detonation	instantaneous, violent chemical reaction within a compound or a mechanical mixture caused by heat and pressure; a blast.
device	something fitted for a particular use; a mechanism.
device (EED)	instantaneous or delayed.
diameter	a line passing from one side of a circle, through the center, to the other side.
discoloration	change in color; stained.
disposable	items made to be used once and discarded or thrown away.
disposal	getting rid of something.
dissipative	spread in different directions; scatter; cause to disappear.
distinct	not the same; different in quality or kind; easily seen or heard; unmistakable.
distorted	pulled or twisted out of shape; change the normal appearance or sound.
disturbed	put out of order; destroy the peace, quiet, rest of.
documented	to prove or support by means of written information.
dose	how long or how much exposure to a substance.

TECHNICAL VOCABULARY

drum	wire, rope, or cable wrap around the drum on the crane twice.
dwell	to put stress on.
electro-explosive	device which is ignited by electricity.
engineering	science, work, or profession of planning, building, or managing engines, machines, roads, bridges, canals, railroads, etc.
environmental	all the surrounding things, conditions, and influences affecting the development of living things; surroundings.
equilibrium	state of balance.
ethical	having to do with standards of right and wrong.
eutectic solder	low melting point solder.
evaporates	change from a liquid to a vapor.
excessive	too much; too great; going beyond what is necessary or right.
exclusion	to keep out.
exhaust	the escape of steam, gases; the pipe or other means through which air passes.
explosion	a chemical reaction of any chemical compound or mechanically mixed compound which when initiated releases highly heated gasses and exerts pressure on surrounding medium.
explosive	a material or several materials capable of producing an explosion by its own energy.
explosive train	explosive elements arranged in order of the most to the least sensitive.
exposed	any sound we are exposed to that is too loud, for too long a time can permanently damage our hearing.
exposure	being in close contact with a harmful substance without protection.
exposure	contact with a dangerous substance, harmful noise, or harmful weather conditions.
facility	1. easy; 2. a building or space wihin a building designed for a particular function.

TECHNICAL VOCABULARY

Fahrenheit	based on a scale for measuring temperature on which 32 degrees marks the freezing point of water and 212 degrees marks the boiling point of water.
finishing	1. completing; 2. a way in which the surface of wood or metal is prepared.
flammable	easily set on fire.
flash point	temperature at which a substance is capable of burning.
flexibility	has the ability to be easily bent, twisted, or shaped.
frequencies	the number of times a vibration occurs per second or minute.
fundamentals	forming a foundation or basis; basics; something essential; a necessary part.
gaseous	like a gas or in the form of gas.
generate	cause to be; bring into being; produce.
generating	producing or bringing into being. Ex. Burning coal can generate steam.
generation	production by natural or artificial processes. Ex. Steam and water are used for the generation of electricity.
generator	machine that changes mechanical energy into electrical energy and produces either direct or alternating current.
gradual	slow change of which a person might not even be aware.
grounded	connection of an electrical conductor with the earth.
hazardous	full of risk; dangerous.
Hearing Threshold	At the age of 20 the softest sound a person can hear is close to zero DECIBELS. The DECIBEL at which a person can hear sound is called the Hearing Threshold.
high explosives	detonate; examples: dynamite and TNT.
hoist	to lift up; equipment for lifting heavy loads.
hovers	hangs suspended in air.

TECHNICAL VOCABULARY

identifying	recognize as being, or show to be, a particular person or thing; prove to be the same; connect closely.
ignitable	describes a substance as being able to burn easily.
incident	an event; something that occurs by chance in connection with something else.
incurs	runs or falls into something unpleasant or inconvenient; bring on oneself.
indicted	charged with an offense or crime; accused.
indiscriminate	mixed up; confused; not distinguishing carefully between persons, things, etc.
indiscriminately	mixed up; confused; not distinguishing carefully between persons and things.
induced	caused; brought on; influenced.
industrial	of or resulting from productive labor in manufacturing.
ingestion	take into the body for digestion.
inhalation	drawn into the lungs; breathed in.
inhibit	hold back; hinder or restrain; check.
initiated	started.
initiator	device used as the first element of an explosive train. It is also called an elector-explosive device (EED).
inspectors	persons who carefully examine machines, work, etc.
instantaneous	happening in an instant.
insufficient	lacking in what is needed.
integrity	honesty; sincerity.
intensity	great strenght; extreme degree.

TECHNICAL VOCABULARY

interplant	together with or between plant buildings.
intoxicants	anything that makes a person drunk, excited, or sick; poisons.
invisible	not easily see.
irritability	feeling angry or impatient.
irritant	thing that causes an irritation.
irritate	make sore or very sensitive.
kink	permanent bend in wire rope.
labeling	slip of paper or other material attached to anything and marked to show what or whose it is, or where it is to go.
legally	according to the law.
legitimate	lawful.
liability	something that is to one's disadvantage.
limit switch	located beneath the drum on a crane; prevents the load from hitting the drum.
low explosives	deflagrate or burn rather than detonate; examples: rocket motors and gun powder.
lubricants	oils or grease for putting on parts of machines that slide or move against one another, to make them work smoothly and easily.
main charge	a given quantity of an explosive used as a propellant. It is the least sensitive charge in an explosive train.
mandates	orders or commands.
manifest	to show plainly; reveal; display.

TECHNICAL VOCABULARY

manufacturing	to make by hand or machine; to produce by human labor, especially in large quantities with the help of machines and division of labor.
maximum	the largest or highest amount.
mechanical	made or worked by machinery.
migrate	move from one place to settle in another.
migration	a movement of people or animals from one place to settle in another.
minimization	reduction to the least possible amount or degree; representation at the lowest possible estimate.
minimize	reduce to the least amount.
moderate	keeping within proper bounds.
myriad	ten thousand; a very great number; countless.
nerve cells	Nerve cells are hair like cells in the inner ear which send electrical signals to the brain. The brain translates these electrical signals into words of conversation, music, and noises we hear.
Nitric-Hydroflouric	industrial chemical.
non-chlorinated	not combined with chlorine, a poisonous gas.
noncompliances	not yielding to a request or a command.
nonpourable	does not flow in a steady stream.
notify	to let know; to give notice; to inform.
objectives	goals; something aimed at.
obligated	bound morally or legally; required to do something.
obscuring	hiding from view.
organic	obtained from living organisms; having an organized physical structure.

organism	a living body made up of separate parts, such as cells, tissues, and organs, which work together to carry on the various processes of life; organized system.
originator	person who causes an event or action to occur. Ex. Thomas Jefferson was one of the originators of the Declaration of Independence.
overexposure	contact with too much of a dangerous substance, harmful noise, or harmful weather conditions for too long a time period.
ownership	right of possession.
oxide	compound of oxygen with another element.
oxidizer	a substance that supports the combustion of fuel.
oxygen	colorless, tasteless gaseous element; an element in the air we breathe which makes up 1/5 of the atmosphere.
particles	a very little bit.
pendant	hanging; suspended; (in crane safety pendant refers to control box on crane).
penetrate	enter into or pass through.
percentage	a part of a hundred.
performance	carrying out; doing.
permanently	intended to last.
perpetrator	person who commits a crime; someone who plays tricks or behaves foolishly.
personnel	persons employed in any work, business, or service.
phenomenon	fact, event, or circumstance that can be observed.
physical	of the body; material matter; medical examination.
piston	a round piece of wood or metal fitting closely inside a tube in which it is moved back and forth by the force of combustion.

CLASS I

DESCRIPTION - In this class, students will be instructed in word recognition and comprehension skills using the language experience approach. With this approach, students use materials and experiences from their everyday work settings to create short pieces of writing which reflect their "language environment." As students learn to master the phonics, linguistic patterns and sight vocabulary of the words they use in their writing, they will become increasingly adept at basic word attack skills while simultaneously working with language which has significant meaning. Using this content, they will learn about the organization of paragraphs into main idea and supporting detail. Areview of whole numbers for estimation and proportion will be reviewed in the context of workplace calculations and measurement. All of these skills will be reinforced in the language laboratory, where the students will spend fifty percent of their instructional time on CAI materials developed especially for adults in the workplace setting. This will allow the instructor an increased amount of one-on-one instructional time with each of the ten students in the class. This class will meet for two, two hour sessions per week.

OBJECTIVES - At the end of this course the student will be able to:

1. Independently use strategies for recognizing words and their meanings.
2. Use these strategies to help recognize technical vocabulary and understand occupational signs.
3. Understand how words are used in context.
4. Identify the topic and main idea in a paragraph.
5. Identify the organization of the text.
6. Organize their ideas in writing.
7. Write simple directions.
8. Follow written instructions in sequential order.
9. Use simple charts and graphs to gain information.
10. Review whole numbers in estimation, ratio and proportion.

Class I : Reading and Writing Curriculum

Reading, Following and Writing Directions

Goals:

- Participants will read and follow instructions to make a picture with JELL-O.
- Participants will be able to write directions for making a peanut butter and jelly sandwich.
- Participants will begin the process of transferring skills in reading and understanding directions to the workplace through reading and discussing the Manufacturing Process on Coating Metals.

Materials:

Paper, Elmer's Glue, JELL-O, pencils, bread, peanut butter, jelly, knife, Manufacturing Process

Development:

Journal: Free Writing

The class starts together, writes non-stop for five minutes, and stops at the same time.

Instructor writes along with the students.

Instructor and students share what they have written.

Instructor demonstrates critical thinking technique of responding to writing: specific praise for what is good; asking the writer and/or class what the author might do to expand the idea, etc.; celebrate the student's effort to express his/her thoughts in writing.

Reading and Following Directions:

Group students. Each individual in the group reads the directions for making JELL-O pictures. The students may discuss the directions together, but each one creates his/her own picture.

Discuss what was good about the directions and what could be improved.

Opportunity for cross referencing experience provided by giving students an additional sheet of instructions explaining a procedure listed in the main directions.

Writing Directions:

Each group will appoint one person to be the secretary to record the steps for making a peanut butter and jelly sandwich. When the directions are completed, the groups will exchange them with each other and try to make a sandwich according to the other group's directions.

The students will discuss and summarize what information should be included in writing directions, how the information is broken down into simple steps, and the importance of sequencing the steps in the correct order.

Students copy steps for writing directions which they have discussed.

Workplace Connection:

Students substitute another word for "Process" in "Manufacturing Process".

Instructor points out to the students that they already have experience in reading and writing directions and that MP's are similar to what they have just done in class. Instructor asks the class what they can expect to find in a Manufacturing Process. Discuss what makes MP's hard to understand (ex.: use of technical words) or discuss what would make MP's easier to understand.

Students explain what they already know about the topic of MP, Metal Coating, using their background information (reviewing reading comprehension technique).

Students read the MP and underline the words which give them difficulty either in class or for homework.

Manufacturing Process **MP- 8291946**

ISSUED: 07-17-91

PAGE: 1 OF 1

Subject: Painting With Jell-O

1.0 Materials:

1.2 Jell-O

1.3 Elmer's Glue

1.4 Paper

1.5 Pencil

1.6 Paper Towels

2.0 PROCEDURE:

2.1 Take a plain piece of white paper (the white paper will be free from all visible forms of defects).

2.2 With a pencil, draw a picture or abstract design on the white paper. (refer to the dictionary to find the meaning of abstract)

2.3 Screw the orange top on the Elmer's glue to the right to open the glue.

2.4 Outline your drawing with the Elmer's glue. Check MP 12345 to find out how to outline your drawing with glue.

2.5 Open the box of Jell-O.

2.6 Carefully open the paper sack inside the box.

2.7 Gently pour the Jell-O over the glue drawing.

2.8 Shake the white paper, making sure that all the areas with glue are covered.

2.9 Shake off the excess Jell-O onto the paper towel.

3.0 Pour the Jell-O on the paper towel back into the box.

Manufacturing Process **MP- 12345**

ISSUED: 01-21-89
PAGE: 1 OF 1

Subject: Outlining Your Drawing With Elmer's Glue

1.0 Materials:

1.1 Elmer's Glue

1.2 Drawing in pencil

1.3 White Paper

1.4 Pencil

2.0 PROCEDURE:

2.1 Screw the orange top on the Elmer's glue to the right to open the glue.

2.2 Tilt the bottle vertically until it is perpendicular to the paper.

2.3 Hold the bottle a half inch over the paper.

2.4 Position the bottle at a starting point on the drawing.

2.5 Slowly squeeze the bottle until the glue begins to flow.

2.6 Smoothly (without jerking) move the bottle over the pencil lines of the drawing.

2.7 When all the lines have been evenly covered with glue, tilt the bottle upright, screw the orange cap to the left to close the bottle, and wipe off the opening on the cap.

THE MANUFACTURING PROCESS PLAN FOR VAPOR DEGREASING

Subject: Vapor Degreasing

1.0 SCOPE:

1.1 The manufacturing process includes the requirements, safety instructions, and controls to be met in the procedure, and the materials and equipment to be used for vapor degreasing.

2.0 APPLICABLE DOCUMENTS

2.1 The information in the following documents are not incorporated in this process. Refer to the following documents as required.

2.1.1 MP-111111 Paint Removal

3.0 MATERIALS

3.1 9,6,7 Chloroform, Vapor Degreasing
Spec: TL-Z 5456
Code: M6-4-67T0-567 OL

4.0 EQUIPMENT

4.1 Vapor Degreasing Units
Spec: Complete with coils, spray attachment, hoses, etc.

4.2 Gloves, Lint-free, Clean, White

5.0 PROCEDURE

5.1 FLOW CHART

5.2.1 ABSORBENT MATERIALS SUCH AS ROPE SHOULD NOT BE CLEANED IN THE V-D UNIT

6.0 QUALITY REQUIREMENTS

6.1 ONLY THE MATERIALS AND EQUIPMENT LISTED SHOULD BE USED

7.0 SAFETY INSTRUCTIONS

7.1 SAFETY GLASSES WITH SIDESHIELDS ARE MANDATORY AT ALL TIME

Class 1: Reading Curriculum

Reading Charts in the Workplace

Goals:

- -Learners will identify the parts/sections of the chart.
- -Learners will answer questions which will offer practice in reading for specific information.
- -Learners will plan their lunch menu for one week

Materials:

- -Company cafeteria newsletter
- -Paper and pencil

Journal Entry:

- -List three of your favorite lunches

Development:

1. Give out newsletter menu chart.

2. Ask: What three categories of food do you have to select from?
    - *soup
    - *entree & vegetable
    - *Special of the Day

3. Ask what categories are listed on the horizontal (across)?

4. Where else do you see charts here at work? List answers on the board.

5. How can you use this chart to help you make decisions?

6. What plans would you formulate by using this chart?

7. Have each learner find and list the days he/she would need to "brown bag it" to work.

Class Discussion:

Have learners share the days they would have to bring their lunch.

Have class write a suggestion list to submit to the cafeteria manager about favorite foods.

Which days do you think offer the best nutritionally?

Summary: Charts are like tools. How can they help you at work?

Class 1: Reading and Writing Curriculum

Reading and Writing in the Workplace

Goals:

-Learners will practice word attack skills on foreign words found in a company newsletter.
-Learners will make a brief timeline which summarizes the article.
-Learners will write a brief description of a "hot dog with everything".

Materials

-Article from "Tidbits" the company cafeteria newsletter
-Pen and paper

Journal Entry:

Describe how you spend your lunch hour.

Development

1. Discuss the journal entry.
2. Give out the company newsletter and point the learners' attention to the article on hot dogs.
3. Introduce the skill of skimming. Have the class run their eyes quickly through the article to pick out words which seem difficult to them. A write the words on the board:
   wiener, Feuchtwanger, immigrant, entrepreneur, dachshund, etc.
4. Take one work at a time and break it into syllables, point out the diphthongs & difficult vowel combinations, and emphasize that the word is difficult because it may be from another language.
5. Practice pronouncing each word. Review the process of work attack and have the class summarize the word attack process. Write the process on the board.
6. Read the article silently or have two or three readers volunteer to read it aloud.
7. Afterward, ask: Why would you want to read this article?
   *love hot dogs
   *human interest
8. You always read with a purpose. Do you read on the job? What purpose is there for you to read workplace material?

9. What dates are mentioned in the article?

10. Draw a time line on the board and have learners copy the model and fill in the dates with the identification of their importance.

/----------------------------/---/
1904 1916 1992

A hot dog with everything includes...

Summary: What did you learn today that might help you on the job?

...Tidbits

Everything You Always Wanted to Know About the Hot Dog

The Bavarian man generally credited with bringing the frankfurter (a.k.a. "weiner" and "sausage") to our shores is Antoine Feuchtwanger. At the St. Louis World's Fair in 1904, he supplied gloves to his customers because the franks were too hot to hold. The gloves were expensive, and people did not always return them. A brother-in-law who was a baker came to the rescue—with long buns to hold the franks.

Meanwhile, back in Brooklyn, Charles Feltman, another immigrant frankfurter entrepreneur, opened a business in Coney Island. In 1916, Feltman's employee, Nathan Handwerker, went out on his own and started—yup!—Nathan's Famous, Inc.

Want to know more? On cold days, vendors selling franks at the New York Polo Grounds baseball games attracted customers by yelling, "Get your red-hot dachshund sausages!" The sports cartoonist Tad Dorgan was inspired by the vendors and drew a barking dachshund in a roll. Not sure of the spelling of "dachshund," Dorgan used the term "hot dog," and the name stuck.

A conservative estimate of the number of "red-hot dachshund sausages" consumed by Americans in one year is over 17 billion. Hot Dog!

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Math and Problem Solving Curriculum

Class I: Practicing Addition and Subtraction with Word Problems

Goals:

To review addition and subtraction and estimation skills
To write word problems as a group and to solve the problems individually
To trade word problems with one group and practice solution finding

Materials:

Cafeteria Chart Menu
A Work Problem Model
Calculator for Problem Checking (in case of disagreement)

Motivation:

How much money do you think you should spend on lunch each day?

Accept answers and record on the board.

Development:

1. Review the goals of the day.
2. Distribute menu chart.
3. Assign three volunteers to add up the cost for the week of the soup, entree with vegetable, and the special.
4. Which is the best deal? Why?
5. The most you might want to spend is about $15-$20 per week. Start with $17 and do a running list of subtraction of your selections and see what is left by Friday.
   $17.00
   - 3.25

6. Who did not stay within their budget amount? Why?

7. Give out model word problem and divide class into groups of 3-5 people.
   Model:
   It is Wednesday and you have already spent half of the $_____ you have allotted for lunches. With Thursday and Friday remaining you will need to budget your money. Make your lunch selections for two days and then what is remaining of your lunch budget money.

   Model:
   You have the special two days a week and the entree three days a week, approximately how much money do you spend per week on lunch?

Model:

You have the __________ and __________ for ____ days per week. How much money did you spend. If you have allotted $________, how much money do you have left?

(Instructor should circulate around the room and help groups get started.)

8. Groups share the third model by exchanging with another group. Through inter-group activity, they check their answers.

9. Round off soup to $1, entree to $3, and specials to $2. Approximately how much could you spend per week on lunch? About how much would that be per month? per year?

Summary:

How did you go about writing your word problems? What did that teach you about solving word problems?

Homework:

Find examples of where you have to do adding and subtracting on the job in order to get your work done. Bring that to class next time.

CLASS II

DESCRIPTION - This course will place increased emphasis on a mathematics component as well as language skills. Specific skills in the curriculum will be determined by the basic skills audits conducted within the plant by the program coordinator and the instructor.

OBJECTIVES - At the completion of this course students will be able to:

1. Use independent strategies to recognize task related words with technical meanings.
2. Identify factual details and specifications within the text.
3. Understand the organization of reading materials.
4. Use table of contents, index systems, etc. to locate information.
5. Write important information accurately.
6. Interpret information on graphs and charts.
7. Write complex directions.
8. Follow directions in sequential order.
9. Present information orally.
10. Organize their ideas in writing.
11. Locate information through cross-referencing charted material with the text.
12. Perform computation skills with whole numbers, fractions, decimals, percents.

CLASS II: WRITING CURRICULUM

FILLING IN FORMS

GOALS: To preview the WIT form
To discuss and practice filling in the form
To brainstorm and think of one way to improve how you do your job

MATERIALS:
WIT Suggestion Form (Working Ideas Together is a program that offers monetary incentives for any work improvement suggestion that is adapted to the job or process. It is a way of rewarding employees who come up with creative solutions which save time or cost in performing a job.)

DEVELOPMENT:

1. Discuss WIT Program
   *Have you participated in this program before?
   *Who do you know who has won a cash award for a WIT suggestion?

2. Give out Xerox copy of the form.

3. Preview its parts by reading the **bold** print.

4. Brainstorm: Divide the class into job families or categories (similar jobs).

5. Appoint a group captain to discuss:
   *What mistakes are often made on your job?
   *How could this be corrected?
   *How could the worksite be rearranged to improve performance?
   *What supplies or parts might need to be stocked to prevent work stoppages?

6. Have learners return to their seats to fill out a "WIT" form.

7. Circulate and assist learners. Pair learners where it is appropriate.

SUMMARY: Have class share their ideas. Some may not want to participate since this is a competitive program and could bring a cash award.

FOLLOW-UP
*Collect forms
*Edit
*Rewrite the forms
*Submit to the WIT Program

WORKING IDEAS TOGETHER

SUBJECT:______________________ DATE:______________

OPERATION:____________________ CONTRACT:____________

STEP NUMBER:__________

IDEAS APPLIES TO
BUILDING:______________ DEPT.________ PART:____________

HOW THE WORK IS PRESENTLY BEING PERFORMED:

HOW I PROPOSE TO IMPROVE ON THE
WORK:______________________________________

SKETCH YOUR IDEA HERE:__________________________

YOUR NAME:______________ LABOR GRADE:______ SUPERVISOR:

JOB TITLE:________________ SHIFT:________ MP:______ EXTENSION:____

Class II : Reading and Writing Curriculum

Introduction to Reading and Interpreting Graphs

Goals:

- Partipants will become familiar with vocabulary words pertaining to graphs, basic parts of a graph, types of graphs, and interpreting graphs.
- Participants will give a writing sample.
- Participants will review "Finding the Time" during Independent Study,
- Participants will work in Contemporary's Real Numbers on tables, graphs, and data interpretation.

Materials:

- Contemporary's Real Numbers
- Xeroxed graph exercises from Contemporary's Number Power 5
- Dictionaries

Development:

Writing sample topic: "Discuss one area in your life you would like to improve and describe how you would do it." (Instructor writes the topic on the board.)

Students will write on the Writing Sample Form. When they are finished, the instructor will collect it.

Vocabulary: The instructor will write the following words on the board and ask the students what they know about each word. The students will provide a definition when possible. If the definition is not correct or the students cannot define the word, have a student look up the unknown definition. Spread the words out among individual students.

graph : pictorial display of information. It gives an overview of a lot of data.

perpendicular lines : lines meeting at a right angle. The angle of perpendicular lines is always 90 degrees.
The instructor draws perpendicular lines on the board and asks students if any streets run perpendicular to the street where they live. This word is very important because students need to know it for the Titan certification test in the workplace.

vertical : straight up or down or perpendicular to the horizon.

horizontal : level with the horizon.

The instructor stresses the technique of visualizing or picturing the meaning of the word in the mind and demonstrates by drawing perpendicular, horizontal, and vertical lines.

Note-taking skills:

The instructor discusses how she and the students are going to learn about graphs; i.e., how the material will be organized to be easier to remember. Instructor asks students to copy notes from the board (if the students need to they can finish copying during independent study time.) Instructor hands out copies entitled "What are graphs?"

1. Types of Graphs:
    a. Pie - shows the whole amount as a circle.
        i. represents a whole divided into parts.
        ii. makes it easy to compare parts.
        iii. shows percents, fractions or decimals.
    b. Bar - common way to represent numbers or amounts.
    c. Line - uses lines to show patterns or trends. Useful in comparing changes in amounts.
    d. Pictograph - shows comparisons of numbers using symbols or pictures.
        i. Each picture stands for a certain number of things.
        ii. Useful when comparing general information.
2. Parts of a graph:
    a. Title
    b. Legend (Key)
    c. Source
    d. Labels

Instructor hands out exercise on finding the missing part of the graph. Students do the exercise.

Instructor Demonstrates Reading and Interpreting Graphs

1. Instructor hands out Graph Skills Inventory and discusses what she

Class II : Reading and Writing Curriculum

Designing Your Own Graph - The Workplace Connection (Continued)

Goals:

- Participants will write a journal entry.
- Participants will continue working on their own graph.
- Participants will look at three workplace graphs that they might encounter at PMT meetings and explain them.

Materials:

- Overhead projector and transparencies of charts and graphs
- PMT graphs
- Graph paper

Development:

Journal Entry: When information on graphs is presented at PMT meetings, do you feel interested, confused, or bored? Explain why.

Individualized Time:

Instructor conferences with each student on chart to be used as a basis for the graph.

Students write their journal entry.

Some students who arrive early may work on the Mac computer.

Whole Group Discussion:

1. The instructor demonstrates transferring the information on her charts to the graph form using the overhead projector.

2. Students make their graphs and write two questions about their graph.

3. Instructor circulates through the group, guiding and answering questions.

4. When students are finished, they exchange graphs and answer the questions.

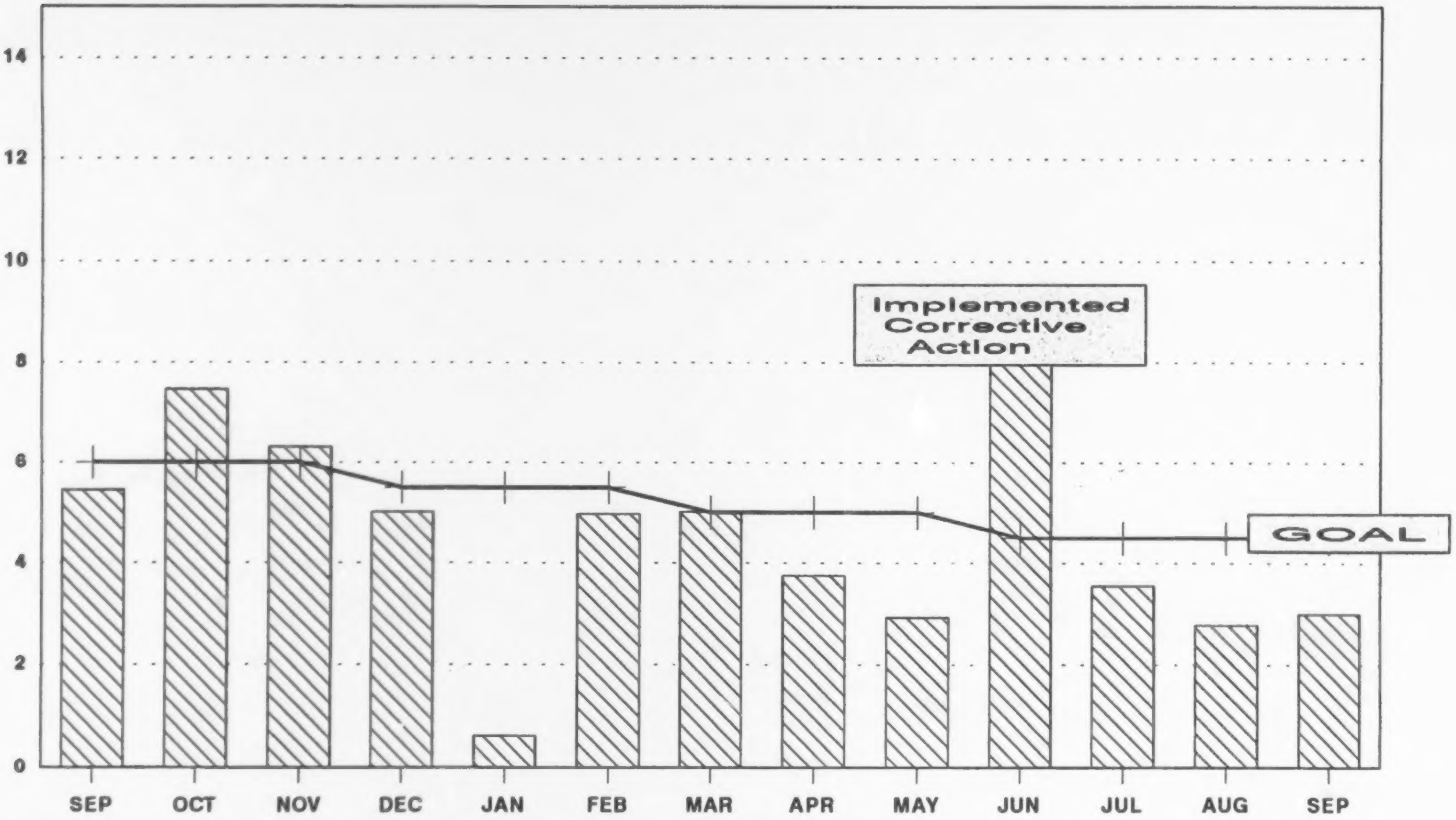
5. The instructor collects graphs and answers questions.

6. Instructor reminds students that there will be a quiz on Wednesday on

FACTORY SCRAP

DOLLARS PER 100 LABOR HOURS

SCRAP DOLLARS PER 100 LABOR HOURS (MONTHLY)



	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Scrap Cost	5.45	7.46	6.31	5.01	0.62	4.97	5.01	3.75	2.94	9.08	3.56	2.78	3.01
Goal	6	6	6	5.5	5.5	5.5	5	5	5	4.5	4.5	4.5	4.5

▨ Scrap Cost + Goal

Class II : Reading and Writing Curriculum

Finishing Up Graph Designing and Introducing Finding the Main Idea

Goals:

- Participants will write a journal entry and rewrite collected journal entries correcting any errors during independent study time.
- Participants will finish their graphs and questions, trade graphs, answer each other's questions, and discuss answers.
- Participants will review PMT graphs.
- Participants will learn how to identify the main idea.

Materials:

*Overhead and transparencies
*Company newsletter: graphs, articles

Journal Entry: Have you ever made a suggestion which would improve the job, working conditions, or save the company money? If yes, explain what the suggestion was and how it helped. If no, discuss what has kept you from making a suggestion.

Independent Study:

1. Journal entry.
2. Rewriting old journal entries to correct errors.
3. Finish graph and questions.

Whole Group Instruction:

1. Discussion of finished graphs.
2. Discussion of PMT graphs.
3. Introduction to finding the main idea.
    a. The instructor mentions that graphs present a main idea in a visual way and include supporting details.
    b. Instructor discusses a graph from the newspaper very briefly in terms of main idea and supporting details.

c. The instructor presents a graph from the company newsletter. Learners explore main idea and specific details which support the main idea.

d. Instructor points out a short article and learners practice finding the main idea and listing its supporting details.

e. Using the questions: who, what, when, where, why, and how, learners find a article from the company newsletter which interests them. They read and underline the answers to these questions.

Summary: Have learners write a brief paragraph about what they learned today. Collect.

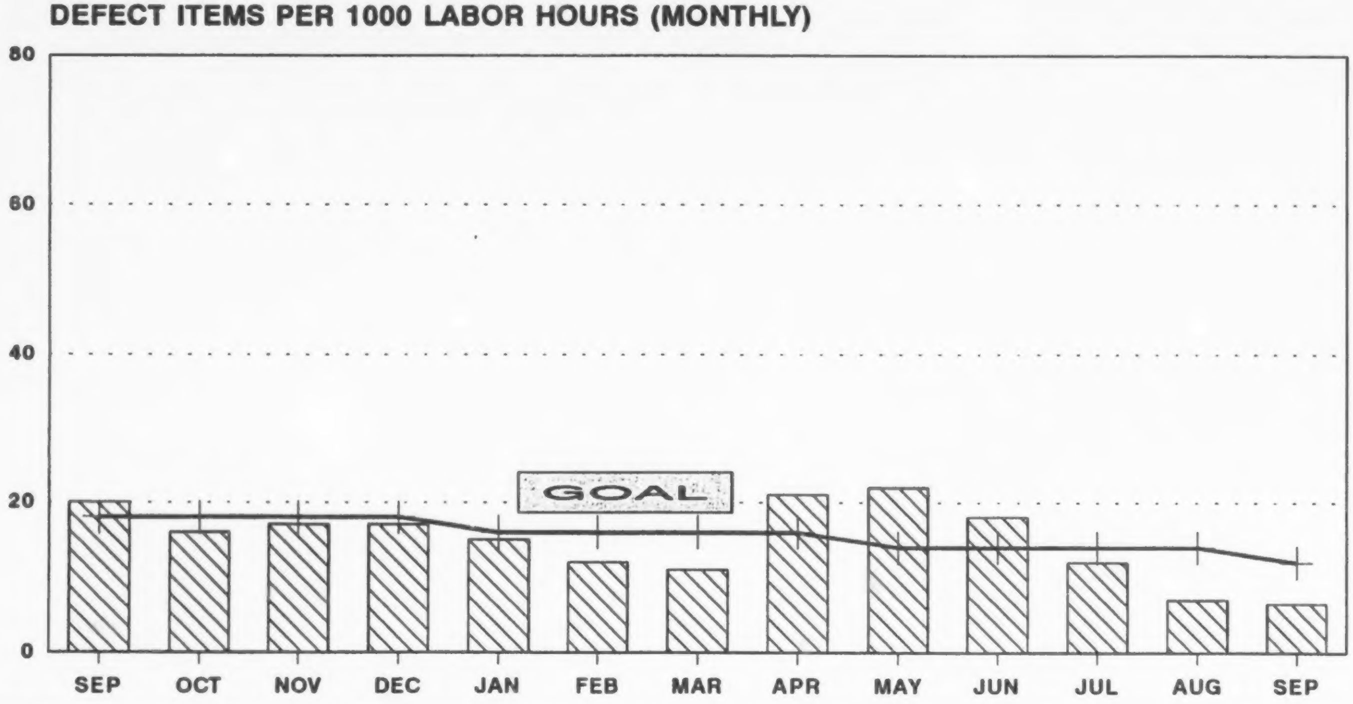
Follow-Up Activities:

* Learners present an oral report to the class on a graph or chart they find from a local newspaper.

*Have learners write a paragraph on a work-related topic of their choice.

DEFECT RATE

DEFECT ITEMS PER 1000 LABOR HOURS



Defects	20	16	17	17	15	12	11	21	22	18	12	7	6.5
Goal	18	18	18	18	16	16	16	16	14	14	14	14	12

MATH CURRICULUM

Using Scales for Proportion and Percentages Review

Goals:

-To locate the scale on a map of the company grounds
-To measure the scales to find ratio of inches to miles/yards
-To use a ruler to check measurement accuracy

Materials:

-Map of the grounds and buildings
-Ruler
-List of destinations

Development:

1. Learners will locate scale and practice finding the distance from the parking lot to their work station.

2. List destinations on the board:
   *from the cafeteria to your work station
   *from the post office to the medical station
   *from the loading dock to the corporate offices

3. Using proportion compare distances to show how one destination is twice as long as another. Review 2/1, and 3/1 distances.

4. Review 100%, 200%, and 300% for these comparisons.

5. Complete in pairs or small groups the worksheet on solving distance problems.

6. Discuss in whole group format.

Summary: How do you use distance, proportion or percentages on the job?

Solving Distance Problems Using Proportion

Directions:

1. Find the Scale of inches to miles on the map.
2. With a ruler measure the scale to find the inches.
3. Write the measurement as a ratio: ______ inches to ______miles.
4. Read the problem to know which two places you'll measure to find the distance between them.
5. With a ruler measure from the first place to the second place mentioned in the problem to find the inches.
6. Write the measurement as a ratio: _____ inches to _______miles.
7. Set up the proportion problem using the scale measurement as the first ratio = the second ratio (measurement of the distance in inches).
8. Solve the problem as a proportion.

Problem 1:

How many miles is it from the airport to the personnel building?

Problem 2:

How many miles is it from the loading dock to the airport?

Problem 3:

What is the distance in miles in length and width of the company's grounds?

MATH CURRICULUM

Class 2: Measurement in the Workplace

Goals:

To review and explore how measuring is an important skill in a production process

To practice measuring precisely with help of a training instructor

Materials/Resources

Scales
Micrometer
Company Trainer/materials to measure

Motivation:

What instruments do we depend on at home to measure?
List answers on the board.

Development:

1. Display scales and micrometer. Group learners around the table and review the incremental markings and what each measures: weight, thickness etc.
2. Ask: Who uses these on the workfloor? Tell us about how you use them or see them used.
3. Trainer speaks to the group about what they need to know in order to use these instructments.
4. Trainer distributes materials to each person to practice measuring. (Instructor participates in the learning experiences.)
5. Individuals exchange materials to be measured so that each gets to practice on the micrometer and the scales.
6. Learners are invited to ask questions.
7. Trainer tells of how "mismeasurements" affect a product and them how that affect customer relations.

Summary:

What did you learn today? If you were transferred to another department which depends on measuring, would you feel confident that you could practice and learn this skill to a high degree of accuracy?

TALK YOUR WAY TO STRESS MANAGEMENT

A COUNSELOR'S WORKSHOP

Workshop Objectives:

*Describe techniques to lower brain frequency while remaining conscious.

*List and practice three relaxation strategies

*Discuss and practice six methods to cope with stress

*Explain and practice communication skills:
    sensory mode matching
    expressing anger appropriately
    verbal martial arts techniques

TALK YOUR WAY TO STRESS MANAGEMENT

I. CAUSES OF STRESS (Open Discussion)

II. WHAT HAPPENS WHEN YOU DON'T MANAGE YOUR STRESS?

(Open Discussion)

III. STEPS TO REACH THE ALPHA STATE (How To Lower Your Brain Frequency While Remaining Conscious)

A. Sit comfortably.

B. Take a deep breath. Exhale.

C. Count backwards slowly from 50 to 1.

D. Visualize favorite place.

E. Say to yourself, "everyday I'm getting better and better in every way."

F. Remind yourself that when you reach the count of 5, you'll feel better and more awake.

G. When you reach the count of 3, repeat the positive thoughts in E and F.

H. When you reach the count of 1, open your eyes and repeat , "I am wide awake and feel better than before."

VI. COMMUNICATION SKILLS (continued)

C. How To Express Anger - The Three Part Message-Audiotape

1. Statement of behavior to be changed.

2. Disclosure of speaker's feelings.

3. Statement of tangible effect.

D. The Purpose Of Verbal Martial Arts

Taken from the Principle of Martial Arts -- Use attacker's own momentum as part of your defense.

E. Two Verbal Martial Arts Techniques

1. **Learn to distinguish between the "bait" and the "presupposed claim"** (group exercise)

   "If you really cared about the budget (**CLAIM**), you wouldn't throw money around the way you do (**BAIT**)."

2. **Apply Miller's Law** (group exercise)

   "In order to understand what another person is saying you must assume that it is true. Try to imagine what it could be true of..."

VII. SUMMING IT UP

BIBLIOGRAPHY

Recommended Materials

Dinosaur Brains - *Coping With Impossible People At Work, Yourself Included.* Albert J. Bernstein with Sidney Rozen. 1989. John Wiley & Sons, Inc., New York.

How To Handle Anger (Without Losing Your Cool). Audiotape. Sourcecom. 1987. Box 12288, Shawnee Mission, Kansas 66212.

How To Benefit From Stress. Dr. Nicola M. Tauraso and Rev. L. Richard Batzler. 1979. Hidden Valley Press, Frederick, MD.

Mastering The Gentle Art of Verbal Self-Defense. Suzette Haden Elgin. Simon & Schuster Publishers, Inc., New York (Book and audiotape - 150 E).

The Secret Of Letting Go. Guy Finley. 1991. Llewellyn Publications, St. Paul., Minnesota.

The Silva Mind Method (Sales Power for Sales Professionals). Audiotape.

WORKPLACE SKILLS ENHANCEMENT PROGRAM

TIME MANAGEMENT AND GOAL SETTING WORKSHOP

Workshop Objectives:

After completing this workshop participants will be able to:

1. Define self-management and describe the difference between self-management and time management.
2. List five (5) steps for self-management.
3. Discuss five (5) characteristics of effective goals.

Skill Objectives:

After completing this workshop participants will be able to:

1. Implement one note taking technique to organize technical vocabulary and procedures for certification classes.
2. Identify which information to take notes on during a workshop or certification class.

Fill in the Blank:

Note taking helps you to remember, because _________ remember better than brains.

I. Purpose of Workshop:

To define self-management and time management.

To describe the difference between the two.

To list five steps for self-management.

To discuss five characteristics of effective goals.

II. Introduction

A. If you were one of the early pioneers traveling by wagon from Maine to California, how many times would you have had to reset your watch before you reached California?

____

B. List one activity that you do which involves you so much that you are not aware of the time passing.

____

C. Our Brains are divided into left brain and right brain. The Left brain keeps track of time. The Right brain has no sense of time.

D. Considering these three points, what can you say about time?

____

____

III. WHERE HAS THE WEEK GONE? (A Guidebook for Teaching Study Skills and Motivation, by Bernice Jensen Bragstad and Sharyn Mueller Stumpf. Allyn and Bacon, Inc., 1982.)

ITEM	WEEKDAY NUMBER OF HOURS
Sleep	______
Meals	______
Job	______
Transportation	______
Class Time	______
Additional	______
	______

Total Hours = ______

Now subtract the Total Hours from 168, the number of hours in 7 days. What is the result? ______This is the amount of "Free Time" you had during the week!

IV. Definition of Time Management and Examples

V. Make a list of activities you can control and a list of activities you cannot control:

ACTIVITIES I CAN CONTROL	ACTIVITIES I CANNOT CONTROL

VI. Definition of Self-Management

VII. Five Steps for Self-Management

VIII. Comparing Self-Management with Time Management

IX. LIFE PLAN

CORE VALUES	VALUE ALIGNING ACTIVITIES

X. Characteristics of Effective Goals

XI. Group Activity -- Are These Goals Effective?

Directions:

1. Each group will have one goal to study.
2. The group will study the goal to see if it has all the the characteristics of an effective goal.
3. The group will identify any missing characteristic (s).
4. The group will rewrite the goal to make it an effective goal.
5. Each group will present its results to the rest of the class.

Group I:	Michael thinks to himself that he would like to learn everything he can about fractions by June 1, 1993.
Group II:	Diane wants to become a volunteer firefighter. She decides that her first step is to contact the fire department and find out what the requirements are. She'll follow their suggestions which might mean taking extra courses after work at night. When she completes the requirements, she'll apply to the fire department.
Group III:	On May 10, 1990 Jim wrote a note to himself saying that he wanted to learn how to use a computer.
Group IV:	Linda's goal is to take a vacation to Hawaii. She has already saved up $100.00 toward this goal.
Group V:	One of Jack's core values is to spend time with his family. Jack works a lot of overtime on the weekends. His goal is to spend more time with his family.

XI. Summary

XII. References

1. Becoming a Master Student. David B. Ellis. College Survival, Inc., 1991.

2. Drawing on the Right Side of the Brain. Betty Edwards. Jeremy p. Tarcher, Inc., 1989.

3. A Guidebook for Teaching Study Skills and Motivation. Bernice Jensen Bragstad and Sharyn Mueller Stumpf. Allyn and Bacon, 1982.

4. Successful Self-Management. Dr. Paul Timm. Video (INS FRN 01081).

How to plan your time

IURSDAY 4/6/				FRIDAY 4/7/			
	PLAN		MONITOR		PLAN		MONITOR
	Shower Dress		Get up	6:30	Exercise		
		7:00	Shower	7:00	Shower	7:00	
	Eat	7:15	Dress	7:15	and dress		
				7:30	Eat		
	Travel		Travel	7:45			
	Class	8:00	Class	8:00	Study	8:00	
				8:15			
				8:30			
				8:45	Travel		
		9:00		9:00	Class	9:00	
				9:15			
				9:30			
				9:45			
		10:00		10:00	Library	10:00	
				10:15			
				10:30			
				10:45			
0	Study	11:00		11:00	Class	11:00	
15			Breakfast	11:15			
30				11:30			
45				11:45			
00	Lunch	12:00	Study	12:00	Eat &	12:00	
15				12:15	Relax		
:30				12:30			
:45	Relax		relax	12:45			
0	Class	1:00	Class	1:00	Shopping	1:00	
15				1:15			
30				1:30			
45				1:45			
00		2:00		2:00	Travel	2:00	
:15				2:15	Study		
:30				2:30			
:45				2:45			
:00	Exercise	3:00	Coffeehouse	3:00	Class	3:00	
:15			with	3:15			
:30			friends	3:30			
3:45				3:45			
4:00	TV	4:00	Exercise	4:00	TV & Relax	4:00	
4:15				4:15			
4:30	Study			4:30			
4:45				4:45			
5:00		5:00	Eat	5:00		5:00	
5:15			Dinner	5:15			
5:30	Eat			5:30	Dinner		
5:45	Dinner			5:45			
6:00		6:00		6:00	Shower	6:00	
6:15				6:15	Dress		
6:30	Study			6:30			
6:45	Group			6:45			
7:00		7:00		7:00	PARTY	7:00	
7:15				7:15			
7:30				7:30			
7:45				7:45			
8:00	Laundry	8:00		8:00		8:00	
8:15				8:15			
8:30				8:30			
8:45				8:45			
9:00	Study	9:00		9:00		9:00	

1. Schedule fixed blocks of time first. Start with class time and work time, for instance. These time periods are usually determined in advance. Other activities must be scheduled around them. Then schedule essential daily activities like sleeping and eating. No matter what else you do, you will sleep and eat. Be realistic about how much time you take for these functions.

2. Include time for errands. The time we spend buying toothpaste, paying bills, and doing laundry is easy to overlook. These little errands can destroy a tight schedule and make us feel rushed and harried all week. Plan for them and remember to allow for travel time between locations.

3. Schedule time for fun. Fun is important. Brains that are constantly stimulated by new ideas and new challenges need time off to digest them. Take time to browse aimlessly through the library, stroll with no destination, ride a bike, or do other things you enjoy. Recreation deserves a place in your priorities. It's important to "waste" time once in a while.

4. Set realistic goals. Don't set yourself up for failure by telling yourself you can do a four-hour job in two hours. There are only 168 hours in a week. If you schedule 169 hours, you lose before you begin.

5. Allow flexibility in your schedule. Recognize that unexpected things will happen, so plan for the unexpected. Leave some "holes" in your schedule; build in blocks of unplanned time. Consider setting aside time each week marked "flex time" or "open time." These are hours to use for emergencies, spontaneous activities, catching up, or seizing new opportunities.

6. Study two hours for every hour in class. I standard advice that you allow two hours of study time for every hour you spend in class. Students making the transition from high school to higher education are often unaware that more is expected of them. If you are taking 15 credit hours, plan to spend 30 hours per week studying. The benefits

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owing this rule will be apparent at exam time.

This guideline is just that—a guideline, not an lute rule. Consider what's best for you. If you e Time Monitor/Time Plan exercise in this ter, note how many hours you actually spend ying for each hour of class. Then ask how your dule is working. You may want to allow more y time for some subjects.

Also keep in mind that the "two hours for ' rule doesn't distinguish between focused time unfocused time. In one four-hour block of study , it's possible to use up two hours for phone , breaks, daydreaming, and doodling. Quality counts for as much as quantity.

7. *Avoid scheduling marathon study sessions.* en possible, study in shorter sessions. Three e-hour sessions are far more productive for most ple than one nine-hour session. In a nine- or 10- r study marathon, the percentage of time ally spent on task can be depressingly small. 1 10 hours of study ahead of you, the temptation tell yourself, "Well, it's going to be a long day. sense getting in a rush. Better sharpen about a en of these pencils and change the light bulbs." e nine-hour sitting you might spend only six or en hours studying, whereas three shorter ions will likely yield much more luctive time.

When you do study in long sessions, stop and for a few minutes every hour. Give your brain a ice to take a break.

Finally, if you must study in a large block of , work on several subjects and avoid studying ilar subjects back to back. For example, if you 1 to study sociology, psychology, and computer nce, sandwich the computer course between chology and sociology.

8. *Set clear starting and stopping times.* Tasks n expand to fill the time we allot for them. ing "It always takes me an hour just to settle a reading assignment" may become a self- lling prophecy.

An alternative is to plan a certain amount of for that reading assignment, set a timer, and k to it. People often discover they can decrease study time simply by forcing themselves to read faster. This can usually be done without sacrificing comprehension.

The same principle can apply to other tasks. Some people find they can get up 15 minutes earlier and still feel alert throughout the day. Plan 45 minutes for a trip to the grocery store instead of one hour. Over the course of a year, those extra minutes can add up to hours. Over a lifetime, they can add up to days.

Feeling rushed or sacrificing quality is not the aim here. The point is to push ourselves a little and discover what our time requirements really are.

9. *Plan for the unplanned.* The best-laid plans can be foiled by the unexpected. Cars break down in winter. Children and day care providers get sick. Subway trains go out of service. Electricity goes off and freezes alarm clocks in the distant past.

That's when it pays to have a back-up plan. You can find someone to care for your children when the babysitter gets the flu. You can plan an alternative way to get to work. You can set the alarm on your watch as well as the one on your nightstand. Giving such items five minutes of careful thought today can save you hours in the future.

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WORKPLACE SKILLS ENHANCEMENT PROGRAM

NOTE TAKING AND TEST TAKING SKILLS WORKSHOP

Workshop Objectives:

After completing this workshop participants will be able to:

1. Identify four (4) main sources of test anxiety.
2. List four (4) ways to reduce test anxiety.
3. Discuss three (3) tips for taking notes during certification classes.
4. Describe three (3) steps for preparing for open book exams.
5. Understand four (4) ways to identify information which should be written down as notes.
6. Identify five ways to "guestimate" the answer to multiple choice questions.

Fill in the Blank:

Note taking helps you to remember, because ____________remember better than brains.

I. **Purpose of Workshop**:

To identify 4 main sources of test anxiety.

To list 4 ways to reduce test anxiety.

To discuss 3 tips for note taking during certification classes.

To describe 3 steps for preparing for open book exams.

To understand 4 ways to identify information which should be written down as notes.

To Identify five ways to "guestimate the answers to multiple choice questions.

II. **Introduction:**

A. Is dying like taking a test ?

B. List your reasons for why you get nervous during a test:

1.

2.

3.

4.

5.

6.

V. **The Key to Overcoming Test Anxiety is GAINING SELF-CONTROL.**

VI. **Preparing to Take a Test - Note Taking Skills:**

A. Four Ways to Identify Important Information

1.

2.

3.

4.

5.

VII. **Three Tips for Taking Notes During Certification Classes:**

A. Make a vocabulary list of technical terms. Fold paper so that it is halved and then divided into five blocks. If necessary for test cut the words with their definitions apart so that you can alphabetize them.

B. On a separate sheet of paper take notes on Steps, Procedures, or Causes.

C. Date and number each note page.

VIII. **Steps for Preparing for Open Book Exams:**

A. Write the formulas needed for the test.

B. Place tabs or paper clips on important pages.

C. Number the note pages and write a table of contents.

IX. Guidelines for Guestimating Multiple Choice Questions:

A. If two answers are similar except for 1 or 2 words choose one of these answers.

B. If two answers have similar sounding words choose one of these answers.

C. If an answer calls for sentence completion, eliminate the answers that would be ungrammatical.

D. If two quantities are almost the same, choose one.

E. If answers cover a wide range (4.5, 66.7, 88.7, 90.1, 5000.11), choose one in the middle.

XI. Multiple Choice Question - Application on Certification Test:

Question 1. Insufficient solder may be indicated by:
Page 46

a. the contour of the wire or lead visible through the solder.
b. the solder fillet being thinner than the lead at any point.
c. the contour of the lead of the wire not visible.
d. a dark oxide film on the surface.
e. none of the above.

Question 2. A solder connection exhibiting non-wetting or improper flow or a stacked or piled up appearance from the surface due to lack of heat is:
Page 46

a. a rosin connection.
b. an insufficient solder connection.
c. an excess solder connection.
d. a cold solder connection.
e. none of the above.

Question 3. Which of the following methods are not acceptable to remove wire insulation?
page 113

a. thermal strippers.
b. scrapping with knife blade.
c. chemicals
d. mechanical strippers.
e. none of the above.

Question 4. Wicking in an area of a wire that is required to remain flexible is:
Page 131

a. not permitted.
b. acceptable
c. unacceptable on large gauge wires only.
d. unavoidable.
e. none of the above.

XII. **Summary - TEST** (Open Notes)

1. Which of the following is not a source of test anxiety?

a. concern about what others will think about us.
b. concern about losing a job.
c. concern that we are prepared for the test.
d. concern about the threat to self-image.
e. all of the above.

2. One way to reduce test anxiety is to __________.

a. get a good night's rest before the test.
b. give yourself a positive message.
c. get a good massage.
d. hold your breath for twenty seconds.
e. none of the above.

3. To prepare for an open book test you need to:

a. write the formulas you need.
b. place tabs or paper clips on important pages.
c. number the notes and make a table of contents.
d. none of the above.
e. all of the above.

4. When taking notes during a certification class it is a good idea to:

a. make a separate list for vocabulary and procedures.
b. try to memorize what the instructor is saying.
c. read the transparencies.
d. discuss it with your classmates.
e. none of the above.

5. One way to identify important information during class is to:

   a. watch the gestures of the instructor.
   b. notice what words or ideas the instructor repeats often.
   c. notice what the instructor writes on the board.
   d. all of the above.
   e. none of the above.

6. Systematic desensitization requires you to:

   a. be relaxed while thinking about taking a test.
   b. be relaxed while taking a test.
   c. stop the session as soon as you become anxious.
   d. take a test.
   e. none of the above.

7. The key to overcoming test anxiety is:

   a. self-control.
   b. self-help.
   c. negativism.
   d. concentration.
   e. none of the above.

8. Note taking helps you to remember, because ________ remember better than brains:

   a. notes.
   b. muscles.
   c. attitude.
   d. all of the above.
   e. none of the above.

XIII. **References:**

1. Becoming a Master Student. David B. Ellis. College Survival, Inc., Rapid City, SD., 1991.
2. Contemporary's Number Power 7 - Problem Solving and Test-Taking Strategies. Ellen C. Frechette. Contemporary Books, Chicago, 1991.
3. How To Beat Test Anxiety & Score Higher on the SAT & All Other Exams. Dr. James H. Divine & David W. Kylen. Barron's Educational Series, Inc., New York, 1982.
4. Test-Taking Strategies. Judi Kesselman-Turkel and Franklynn Peterson. Contemporary Books, Inc., Chicago, 1981.

G.E.D. PREPARATION

DESCRIPTION - The instructor will administer Form A of the G.E.D. practice test at the beginning of the course and base the student's I.E.P. on the test results. Emphasis will be placed on paragraph reading and writing skills, arithmetic and elementary algebra skills, word problems, interpretation of graphs and charts, literacy interpretation and test-taking skills. While the primary mode of instruction will be lecture and discussion, students will be given ample opportunity to work on sample G.E.D. questions. The learning laboratory will be available for students to seek supplementary help on a specific weakness in grammar, vocabulary, comprehension or mathematics. At the end of the course, all students will take Form B of the official G.E.D. practice test to determine if they are ready to take the G.E.D.

GED COURSE OUTLINE

COURSE DESCRIPTION: Students are first pretested in order to find out their strengths and weaknesses in reading, essay writing, math using series AA of the GED Pretest. Based on those scores, an Individualized Education Program is written which reflects the skills and content the learners needs in order to pass the GED exam. This means that each student will receive generalized instruction in answering GED questions about reading, writing, and math and specific tutorial instruction on their areas of greatest weakness.

Test-taking strategies which focus on identifying "distractors" and time-saving measures, and dealing with test-anxiety will also be taught and practices. These strategies will be applied and practiced as participants take the series BB of the GED Post-test and determine if they are ready for the GED exam given by the Maryland State Department of education.

Generalized Instruction: Contemporary's GED Book

Word Problems: NUMBER POWER SERIES
Essay Writing: THE READING-WRITING CONNECTION
Previewing for Reading Comprehension: HANDOUT
Test taking Strategies: KENTUCKY TV VIDEO SERIES #2

Small Group Instruction:

Math: fraction group, decimal group, percentage group

Reading: Main idea, inference, analysis, details, evaluation groups

Tutorials: As needed according to student test results.

Learners usually sign-up to take the GED exam within a period of 3 to 6 months. Students may rejoin the class a second time if they feel they need more time to prepare.

SOFTWARE:

MATHBLASTER MYSTERY (word problems)
ATLAS EXPLORER
ALGEBLASTER PLUS
ALGEBRA CONCEPTS
GEOMETRY CONCEPTS
GRADE A MATH SERIES
GRADE A GRAMMAR SERIES
GRADE A READING SERIES

INSTRUCTIONAL TIPS FOR GED CLASSES

1. You will save time by directly applying any skill or content you teach to the test. Because if you do not apply it to the test, many learners may miss this important step. Taking sample questions and building the skill acquisition around this activity is a strong instructional technique. What is not directly applied is often forgotten.

2. Individualized instruction is important, especially in math. But group work for word problems is also important so that each learner may share, "talking through" the solution. Large group instruction is convenient for test-taking skills, previewing, essay writing, and practicing sample questions from the exam.

3. Reading groups may be helpful to those learners who like to discuss their answers (auditory style). You may also consider grouping by using the GED Pretest results. Some learners can practice social studies or science or what ever is their area of greatest weakness.

4. For essay writing, stress the importance of ORGANIZATION. Organization can "cover a multitude of sins." Brainstorming, listing, and prioritizing will help writers master organization. Have timed writing after the class practices the skill. Have them write an essay at least once a week for practice.

5. Confidence is a critical factor in passing the GED since most GED candidates score close to 225 (passing). Test-taking skills along with test simulations can help learners to adapt to the pressure of such a long exam.

6. Algebra and geometry often intimidate learners. If they are intimidated, have them focus on basic math: addition, subtraction, multiplication, division, decimals, and percents. Word problems need to be mastered in these subjects also.

7. The GED test is 75% reading; have the learners master the skill of previewing.

8. If a learner get borderline scores on the post-test, tell him/her to take the exam and pass some sections of it. If the learner shows signs of fear of failure, assure him/her that the aim is to practice test-taking skills and identify their subjects of greatest weakness. Once the learner passes a section or two of the exam, he/she can return to class and focus on their areas of greatest need. However if they lack complete confidence, it might be better to have them study 1-6 months longer, and then take the test.

9. Encourage them to study in short periods of time 3-5 times per week. Short study periods are effective for difficult materials. Maximum concentration can be achieved for about one-half hour.

10. Those learners who are unable to pass the exam after a second try, should be counseled and encouraged to pursue the External Diploma Program in your local school district.

GED INDIVIDUALIZED EDUCATION PROGRAM

NAME: ______________________________
DATE: ______________________________

PRETEST RESULTS:
    ESSAY: ______________________________
    ENGLISH: ______________________________
    SOCIAL STUDIES: ______________________________
    SCIENCE: ______________________________
    LITERATURE: ______________________________
    MATH: ______________________________

IDENTIFY AREAS OF GREATEST WEAKNESS: ______________________________
____
____

SUPPLEMENTAL TEXTS: ______________________________
____
____

GROUPS ASSIGNED: ______________________________
____
____
____

INDIVIDUAL WORK EACH CLASS PERIOD:
    _____ MINUTES ON ______________________________

    _____ MINUTES ON ______________________________

ACTIVITIES SHOULD INCLUDE:
____
____
____
____
____
____
____

DATE FOR GED POST TEST: ______________________________

PROJECTED DATE FOR THE GED EXAM: ______________________________

PREVIEWING: A TIME SAVING SKILL FOR THE GED EXAM

Previewing is a skill that can increase your reading comprehension, help you eliminate "distractors", and save time on the test. Previewing allows you to skim through the reading and questions so that you can get a short introduction to the subject. This introduction "prepares" your mind to accept the ideas and opinions which you will be asked questions about. Previewing can increase your comprehension by 60%-80%.

If you increase your understanding of the reading, you will be better able to eliminate those answers which are similar to the BEST answer, but distract you from it. These "distractors" are irritating and time-consuming to examine, so you will need to become sensitive to the many kinds of distractors test-writers use. Distractors can include:

***direct quotes**
***narrow or partially correct answers**
***two answers that say the same thing**
***misworded answers that sound similar to the text**
***unclear, vague, unspecific answers**
***assumptions: conclusions which agree with your opinion**

Previewing Process:

I Read the first sentence and the last sentence of the passage. If the passage is long, read the first sentence of each paragraph, then the last sentence of the last paragraph. (If it's poetry read the first two and last two lines.)

II Now read just the question stems, so that you will know what to read for.

III Read the whole passage and assume that it will make sense to you. You need to be ready to accept the ideas whether or not you agree with them.

IV Actively question, visualize and bring your life experience to the reading. Relate anything you can to the reading. Create pictures or images in your mind to help you understand the author and point of view.

V Use the process of elimination and look back at the passage as your try to pick the BEST answer.

VI Be aware of the distractors which can take you off-track and keep you from finding the BEST answer.

Test-taking can be an anxiety-ridden experience, but it doesn't have to be. You just need to practice previewing until it is a reflex or it can be a skill to use when you are feeling tired on a long section of the test. But practice is the key to making this skill work for you.

PRACTICAL WORK APPLICATIONS

DESCRIPTION - This course will offer instruction on advanced development, including structural analysis and technical vocabulary, reasoning, following directions and problem solving. Again, the basic skills audits completed by the program coordinator and instructor will help in the creation of a specific curriculum relevant to the job requirements within the plants.

OBJECTIVES - At the end of this course the students will be able to:

Reading:

1. Follow sequential written directions to complete a task.
2. Interpret and apply general work-related vocabulary.
3. Cross reference within and across source materials to select information in order to complete a task.
4. Correctly fill in the information on a required form used in completing a task.
5. Observe and report mistakes.
6. Interpret safety instructions or procedures.
7. Read graphs, charts, tables, signs, and forms in order to complete a task.
8. Practice the feedback technique for validating verbal directions in order to complete a task.
9. Practice inferential and evaluative skill when interpreting memos or verbal directions.

Math:

1. Practice problem solving strategies for word problems involving measurements.
2. Review fractions, decimals, and percentages in relation to the job tasks.
3. Interpret pictures, graphs, tables, and drawings in order to find information or complete a task.

Job Aids:

1. Practice active learning skills like notetaking, questioning, and feedback in order to pass certification courses.
2. To become "user friendly" with Macintosh computers.
3. To manipulate software in order to gain information and complete a task.

4. To complete a JOB BOOK in order to analyze the tasks, environment, chain of command, health and safety standards, problem-solving strategies, technical vocabulary, and policies and procedures which relate to productivity in the workplace.

LESSON ON PROBLEM SOLVING AND DECISION-MAKING

INTRODUCTION:

You've worked at your new job for six months now. You like the job and think you are doing it pretty well. You'd like to know what your supervisor thinks of your work, and what you can do to move up in the company. The problem is that you supervisor has never commented on your performance, and whenever anyone tries to talk to him/her, she/he gets upset because of rushed schedules. You want a work evaluation, but you don't want to anger your supervisor. What's your decision--speak up and ask for an evaluation, or keep quiet and wait? Give reasons for your decision.

Motivation: After reading and reflecting on the above scenario, two students will dramatize.

Objective: After enactment of scenario, students will determine methods to confront a supervisor who appears unapproachable.

Procedure: Will choose two students to play roles and depict scene unrehearsed

Characters: Employee #1 (Supervisor)
Employee #2 (Worker)

Scene opens with Supervisor rustling papers and talking on phone. The worker enters the office.

Peggy: *Rob, I'd like to have a few minutes of your time to discuss something.*

Discussion:

What method did the worker use to communicate with his/her supervisor?
What other methods might have been considered?
What choices could the supervisor have made in response?

Summary:

Based on this scene we all decided that when the supervisor suggested that the employee write a note, she should have acknowledged that request and dismissed herself from his office in order to minimize tension.

Learner suggested, after reflecting on this unrehearsed scene that when Rob said he was busy, she could have asked could she come in before the work day begins or when it ends.

We concurred that when the stress level is high in your department due to a heavy workload or when working with a boss who is easily angered, that as a subordinate, we should learn to increase our tolerance level so that we won't take the situation personally, but more importantly, we should work on being flexible and willing to compromise so that we can achieve our goal.

Follow-Up: Next week, learners will do an interoffice memo requesting a convenient time to meet and discuss a 6-month evaluation.

WORKPLACE SKILLS ENHANCEMENT

Problems, Problems, Problems
Solutions, Solutions, Solutions

Directions: List and give a little detail about some of the common or uncommon problems you face at work. Consider equipment, tasks, people, and policies as areas where problems may arise.

1. ______________________________

2. ______________________________

3. ______________________________

4. ______________________________

5. ______________________________

LESSON ON COMMUNICATION

OBJECTIVE: By the end of this class, you will be able to list and explain the barriers and problems we face in the process of communication.

Motivation: (Journal Prompt) If I could improve communication with one person it would be... because...

Transition: All of us have problems with communication. But where does communication happen? In the speaker or the hearer?

What is the difference between hearing and listening?
Can you listen as well as you hear?

Procedure:

1. Invite class to take notes/SHOW A FEW ABBREVIATIONS TO HELP THEM.
2. Show Outline on Overhead (see lecture).

3. As you lecture ask students to give examples from home or work. ask student not to use names and to respect the identities of co-workers and supervisors.

Summary: Communication is a complex process. Out next lesson will explore active listening techniques which can increase shared meaning and reduce conflict and stress.

LECTURE AIDE

Lecture Outline for Communication *(This is the subject order)*

- I What is Communication?
    - a. Everywhere
    - b. Continuous
    - c. Shared meaning
    - d. Multilevel
    - e. Predictable
    - f. Defined
- II Perception
    - a. Handout
    - b. Interpretation
    - c. Implication
    - d. Look before you leap

- III Barriers
    - a. Hearing/Spatial Barriers
    - b. Language: male/female/cultural/ age/vocation/ others?
    - c. Individual Differences: Attitudes, Beliefs, Values

- IV Process
    - a. We think
    - b. We feel
    - c. Self-concept/self-esteem

- V Listening vs. Hearing
    - a. Active Listening
    - b. Passive Hearing

COMMUNICATION: ATTITUDES, BELIEFS, AND VALUES
(LECTURE AIDE)

I Listening is the major factor in the communication process, because you can hear but not actually listen. Listening is a skill--active listening is the skill mastered.

*We remember about half of what we hear.
*Two day later, we might only remember 25% of what we heard.

II Why do you think people are such poor listeners?

____
____
____

III What are some of the natural barriers to listening?

____
____

IV How could you improve your listening habits? List:

A.______________________

B. ______________________

C. ______________________

D. ______________________

V Personal styles can get in the way of understanding. Give examples:

A. ______________________

B. ______________________

C. ______________________

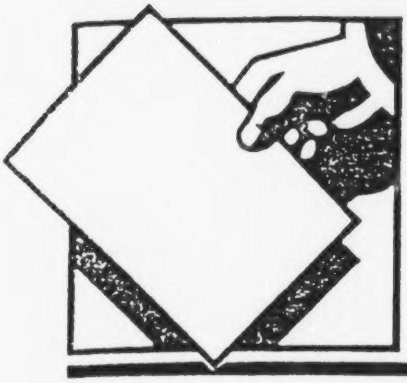
VI Gender differences? Have you noticed any in terms of communication?

VII Culture differences? have you experience any problems with communication with a non-native speaker? Give an example.

VIII Attitude: mental mind set
Beliefs: ideas that are held to be true DISCUSS
Values: things held in high regard

What could overcome any barrier to communication? Think about missionaries, diplomats, or arbitrators. They have to listen and communicate in highly effective ways.

[illegible] Paradigm Series

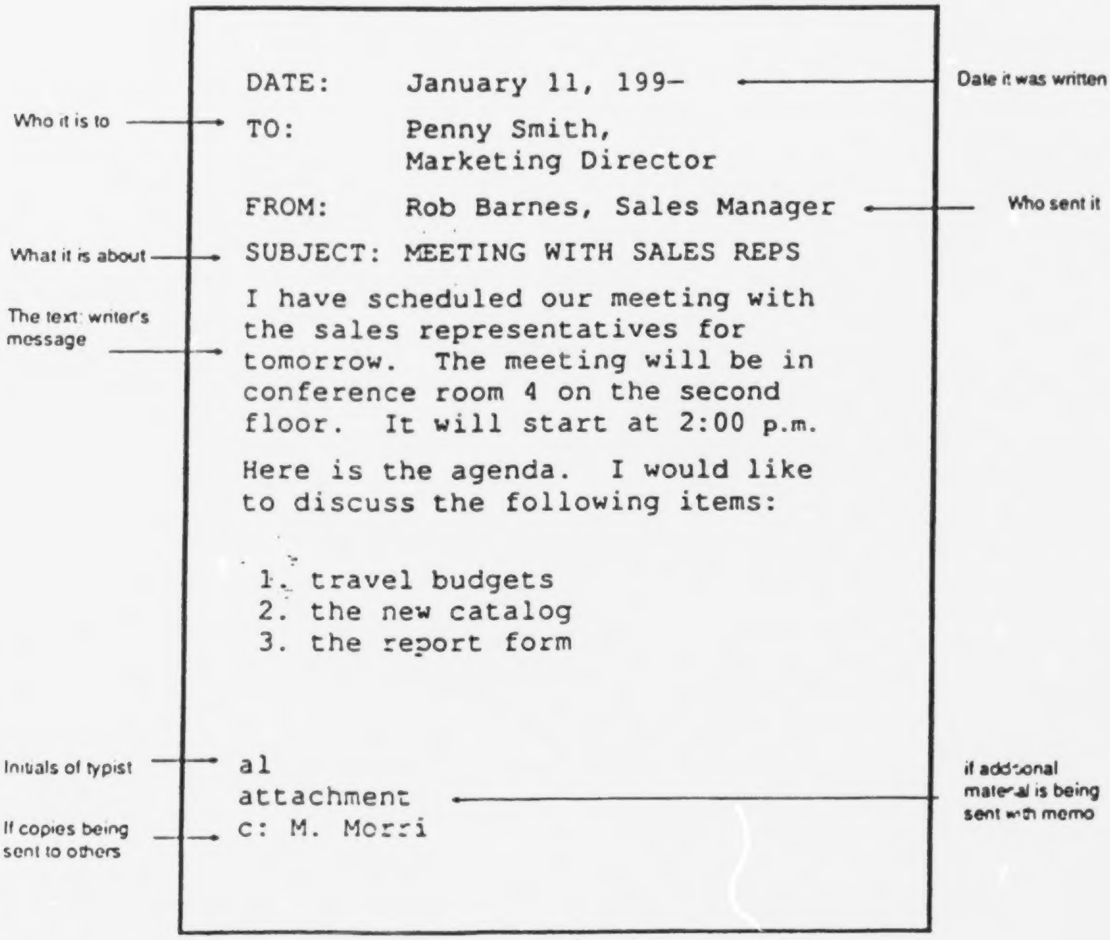


LESSON 1

Reading Memos to Find Information

Memos are a common form of reading material in a business. *Memo* is short for *memorandum.* Companies use memos to pass on specific, up-to-date information about meetings, tasks, decisions, or schedules. Memos often replace spoken communication because they provide a written record of the information.

Most memos have a similar format or organization. This makes them easy to read. The memo format highlights important facts. Here is a typical memo.



DATE: January 11, 199-

TO: Penny Smith,
Marketing Director

FROM: Rob Barnes, Sales Manager

SUBJECT: MEETING WITH SALES REPS

I have scheduled our meeting with the sales representatives for tomorrow. The meeting will be in conference room 4 on the second floor. It will start at 2:00 p.m.

Here is the agenda. I would like to discuss the following items:

1. travel budgets
2. the new catalog
3. the report form

al
attachment
c: M. Morri

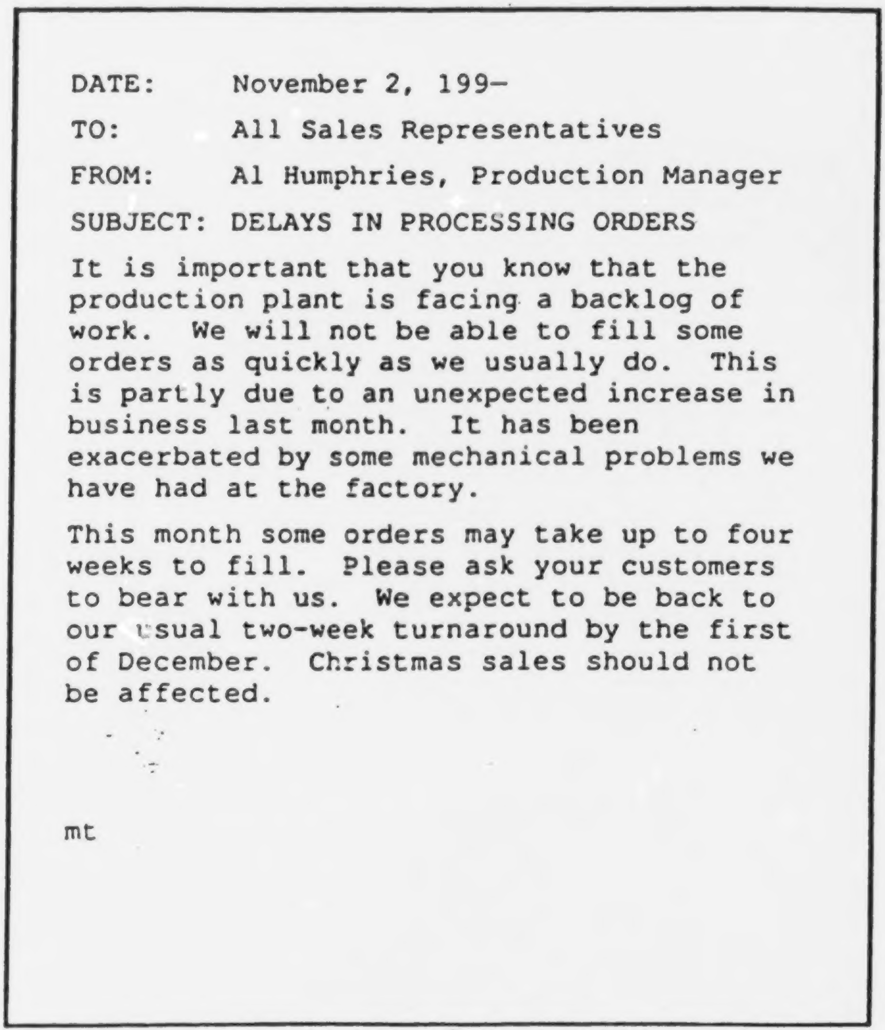
Date it was written
Who it is to
Who sent it
What it is about
The text: writer's message
Initials of typist
If additional material is being sent with memo
If copies being sent to others

Check Yourself

Work Problem

You have just received a telephone call from Jesse Dupree, the Midwest sales representative. He says, "Some of my customers are complaining that they haven't received furniture ordered more than three weeks ago." He points out that normally orders are filled in less than two weeks. He asks what is causing the delay and what he should tell his customers.

You remember that a memo was recently sent to all sales representatives with information about delays in orders. Jesse says he has not seen it. Look at your copy of the memo to see if you can help Jesse.



DATE: November 2, 199–

TO: All Sales Representatives

FROM: Al Humphries, Production Manager

SUBJECT: DELAYS IN PROCESSING ORDERS

It is important that you know that the production plant is facing a backlog of work. We will not be able to fill some orders as quickly as we usually do. This is partly due to an unexpected increase in business last month. It has been exacerbated by some mechanical problems we have had at the factory.

This month some orders may take up to four weeks to fill. Please ask your customers to bear with us. We expect to be back to our usual two-week turnaround by the first of December. Christmas sales should not be affected.

mt

Exercise

Try to decide the meaning of difficult words from their context. Choose the best definition for the words and phrases listed below. Choose the meaning of the word closest to that used in the memo.

1. backlog

   a) wood used to make furniture
   b) lack or shortage
   c) buildup
   d) breakdown

2. exacerbated

   a) fixed
   b) made worse
   c) improved
   d) caused

3. bear with us

   a) stop ordering
   b) write to us
   c) help us with deliveries
   d) wait patiently

4. turnaround

   a) look the other way
   b) time between receiving an order and filling it
   c) delay
   d) tone of voice

Now consider your work problem and the memo you are reading. Answer the following questions. Remember to define, plan, read, and check.

What is your purpose for reading this memo?

____

____

Why is it taking longer than usual for the plant to ship orders?

____

____

How long does Mr. Humphries expect to have delays?

____

____

How much time does it usually take of to fill an order?

____

____

On Your Own

Here are four more work problems. Remember to define your purpose and plan your solution. Read to find information and then, if you need to, reread some or all of the document carefully. Finally, check to see if you have solved your problem.

Work Problem A

Leisure Stores has bought the rights to a new board game. Before selling the game throughout the country, the company wants to test sales in a region where games usually sell well. Carmine Vara gives you the following table. She says, "Take a look at this table and let me know which of the six sales regions would be the best area for testing the new game."

REGIONAL TOY SALES BY TYPE

	Electronic Toys	Educational Toys	Construction Toys	Games
Northeast	12%	15%	21%	16%
Southeast	19%	17%	18%	13%
Midwest	16%	12%	16%	28%
MT States	21%	23%	17%	13%
Southwest	14%	14%	13%	19%
West Coast	18%	19%	15%	11%

What is your purpose for reading this chart?

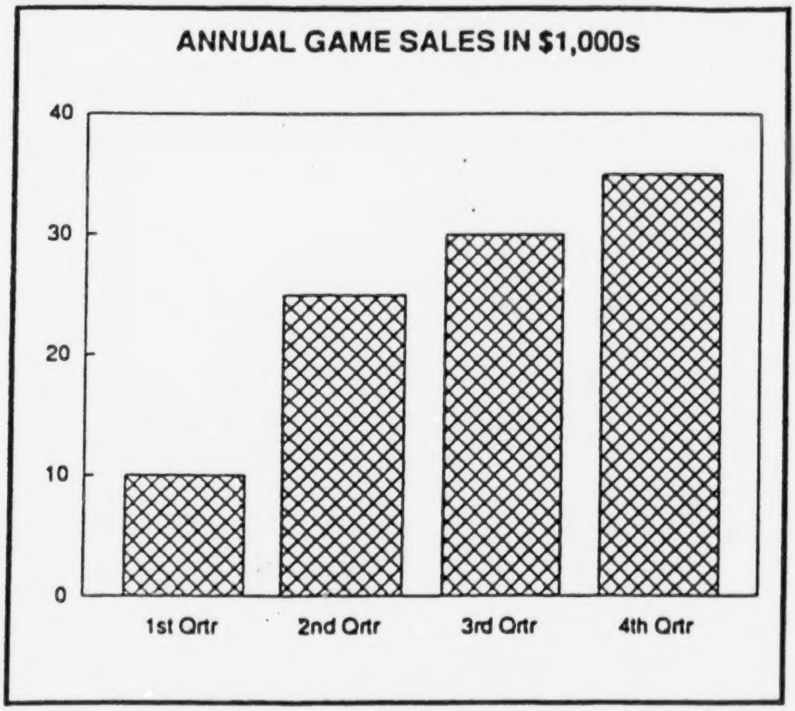
What are the labels for each row?

What are the labels at the top of each column? Which one must you read?

In what region do games sell well?

Work Problem B

Sales of most products change over time. There are periods when sales are high and periods when they are low. It is important to introduce the new game in a period when game sales are usually high. Carmine Vara gives you the following chart. She asks you to decide which quarter of the year would be the best for putting the new game on the market.



What is your purpose for reading this chart?

____

____

There are four bars. What period of time does each bar represent?

____

____

Which quarter of the year would you recommend the new game be put on sale?

____

____

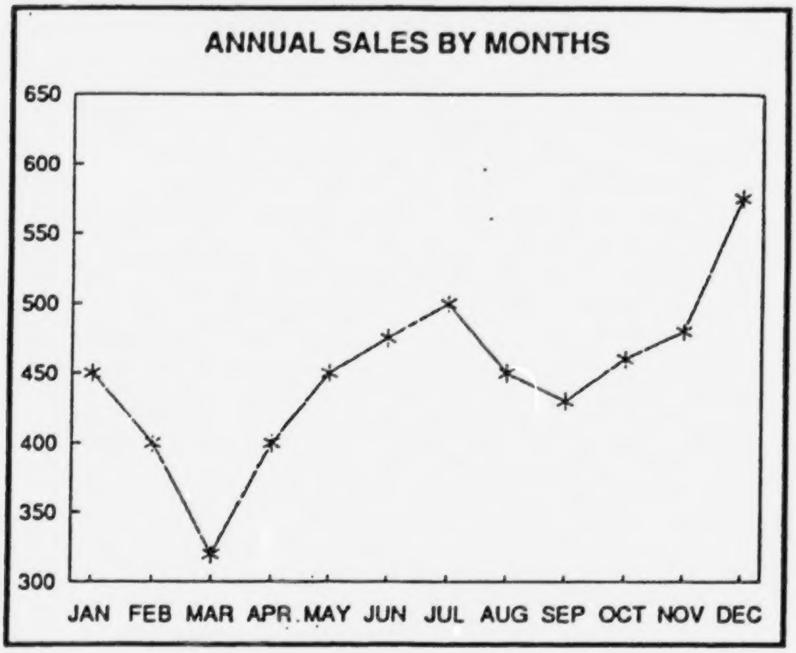
Could you make your recommendation to Ms. Vara if the bars did not have labels? Explain your answer.

____

____

Work Problem D

Al Gomez must make sure that he has enough toys and games in stock. To do this, he keeps track of monthly sales of each item. He says, "I'm not sure when is the best time to order playing cards. Find last year's graph showing the sales of playing cards by month. Tell me the two months that sales are highest. Also tell me the lowest month, so I do not order at that time."



What is your purpose for reading this graph?

What information will this graph give you?

What are the two highest sales months for playing cards?

What is the lowest sales month for playing cards?

Is it necessary to know the exact number of sales to solve your work problem? Why?

Work Problem

Samuel Murtz is purchasing manager at Coverall Insurance. He has hired you to help Bertha Hadley, his assistant.

Your first assignment is to fill out the order blank below. You are to order 3,000 single window envelopes, 9 1/2" x 4 1/8" (product number 0915). The cost of the envelopes is $108.50. The envelopes must be imprinted with the company's name and mailing address:

- Coverall Insurance Company
- P.O. Box 245
- Stoughton, MA 02070

They must be delivered to Mr. Murtz at the company street address, 2415 Old Hatfield Road. The bill should be sent to Rosalie Donovan at the company's mailing address.

1

Person Ordering:
Firm Name:
Street Address:
City, State, ZIP Code:

2

BILL TO:
Attention:
Firm Name:
Street Address:
City, State, ZIP Code:

PAYMENT OPTIONS:

☐ Check or money order enclosed.
☐ Bill me later.
☐ Please open an account for us.

3

SHIP TO:
Recipient Name:
Firm Name:
Street Address:
City, State, ZIP Code:

4

ORDER INFORMATION:

Product Number	Quantity	Description	Size	Unit Price	Totals
				SUBTOTAL:	
				TAX:	
				TOTAL AMOUNT DUE:	

5

IMPRINT INFORMATION: Send printed sample or fill in wording below.

What must you include with the package?

____

____

Work Problem D

Mr. Murtz and Ms. Hadley will be away from the office attending a meeting. This will be your first time on your own. You ask Ms. Hadley what you should tell people who phone. She says, "Just take a message, and tell them that Mr. Murtz or I will get back to them. Please be sure to take a complete message. Use the telephone message forms, and fill out all the information."

After they leave, the phone rings. Mr. Bennet, the company president, has called a manager's meeting for 9:00 A.M. tomorrow. Mr. Murtz must present a report on the new purchasing program. Mr. Bennet wants to preview the report before the meeting. He asks that Mr. Murtz call him at extension 1432 as soon as he returns. He says it is urgent.

For ____________________

Date __________ Time __________

WHILE YOU WERE OUT

M ____________________

From ____________________

Phone No. ____________________
Area Code Number Extension

TELEPHONED	☐	URGENT	☐
PLEASE CALL	☐	WANTS TO SEE YOU	☐
WILL CALL AGAIN	☐	CAME TO SEE YOU	☐
	RETURNED YOUR CALL	☐	

Message ____________________

____

____

____

____

____
Operator

What is your purpose for reading this form?

____

____

Class IV: The Writing Curriculum

Introduction: Many learners have had negative experiences with writing and approach the writing task with apprehension. The following lesson breaks the writing process into manageable tasks which when combined with a topic relevant to the learner promotes a positive writing experience.

State Outcomes:

1. Learners will participate in a positive writing experience
2. Learners will discover that writing is a process as opposed to a product.

Titles: Writing a Job Narrative

Level: Tested above 231 on CASAS

Objectives:

1. To practice information gathering techniques for writing preparation.
2. To write a draft narrative on tasks performed on a typical day.
3. To share writing and seek feedback from other learners and the instructor.

Materials: Handouts: Web, Chain, List, and Writing Sample

Lesson Development:

1. Share objectives with learners.
    A. Instructor writes objectives on the board.

    B. Instructor discusses objectives with learners.

1. Justification

   "In order to make this course worthwhile for you, I (instructor) need to understand what each of you do every day on your job."

2. Motivation

   - "How many of you think you don't like to write? (show of hands)
   - "How many of you have had negative writing experiences? (show of hands)
   - "How many of you were asked in school to take a blank sheet of paper and write about your summer vacation?"
   - "How many of you had trouble filling it up?"

3. Transition

   Writing is a process just like a recipe. If you don't take it one step at a time, you have nothing to eat. What if you try to make bread without following the steps? You end up with a brick.

II. Procedure

A. Large Group Activity

1. Ask learners: What process or steps seem logical to follow when you write? Accept and list answers adapting word choice to the learners' contributions i.e., picking a topic, gathering information, organizing the information, writing a draft, find someone to read and react to writing, refining, and rewriting.

2. Now we have discussed the process let's follow it. First step is to pick a topic. Today, the topic is going to be writing about your job.

3. The next step is gathering information on our topic. This can be a difficult step. There are a number of ways to approach this task. We will review 3 methods to make this step easier. Instructor modeling and guided practice for:

   A Webbing
   B List of Ideas
   C Flow Chart
   (Can be done on index cards or paper)

   Instructor models each technique with her own job

B. Individual Activity

1. Student selects one method for gathering information and records his/her information on chosen hand-out.

   Instructor moves around room giving feedback as needed.

C. Small Group Activity

Divide class into groups of 2 or 3 based on common occupations. Learners without a partner in a similar occupation should join a group. Instructor moves around room offering positive feedback as needed. Learners share their web list or flow chart with the group. The purpose of this activity is to allow the writer to receive feedback or reactions from an audience. At this time the learner will receive suggestions for organizing information into clusters of similar content.

D. Individual Activity

Instructor summarizes small group activity.

Learners work individually to:

1) Organize information into clusters of similar content

2) Number clusters in sequence

3) Begin to write rough draft in sentences and paragraphs. Instructor moves around room offering positive feedback as needed. It is important at this point that the Instructor accepts all draft writings of students enthusiastically to building student confidence in writing.

III. Closure/Evaluation

A. Instructor returns to objectives. Ask learners to summarize the steps in the writing process and which steps were completed in today's lesson.

B. Instructor collects the gathered information, i.e., web, flow chart, list of ideas, clustered topics, and the rough draft.

C. Instructor will review the materials from each learner checking for task completion: organization of clusters into similar content and sequencing of clusters into logical order. Instructor should make specific constructive comments in writing on each paper concerning the above points.

IV. Follow-Up Activities

A. Once all learners have completed a rough draft, students should work on the refining process. Divide learners into pairs and have learners exchange papers. Each reader writes questions to help clarify meaning of the rough draft. It is important that the reader act as an editor, who asks questions and not give criticism.

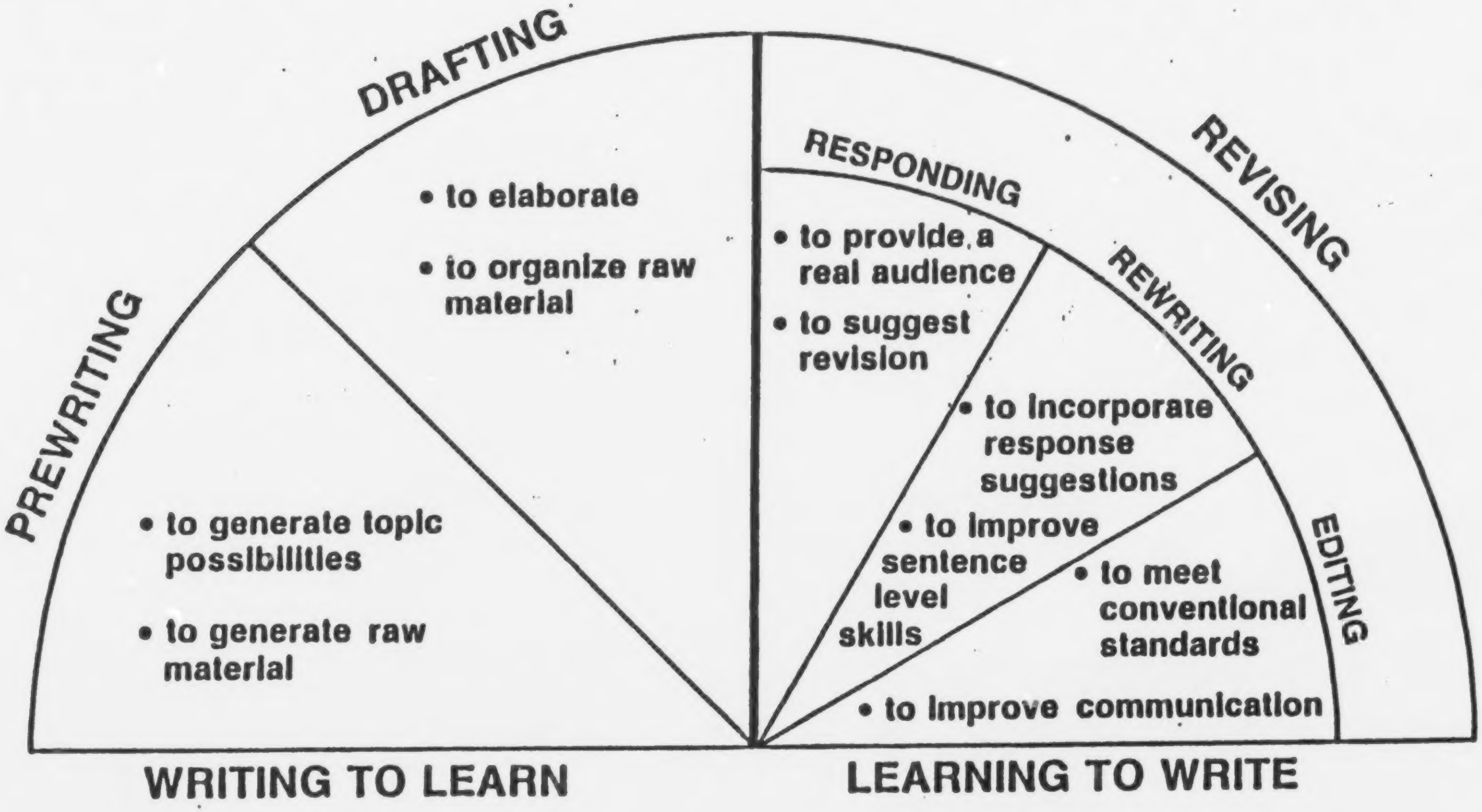
B. After peer editing, the class collaborates with the instructor to formulate a checklist on what constitutes good writing.

C. Instructor distributes copies of "One Day in the Work World of a Repair Person." Learners will use the checklist to evaluate the model.

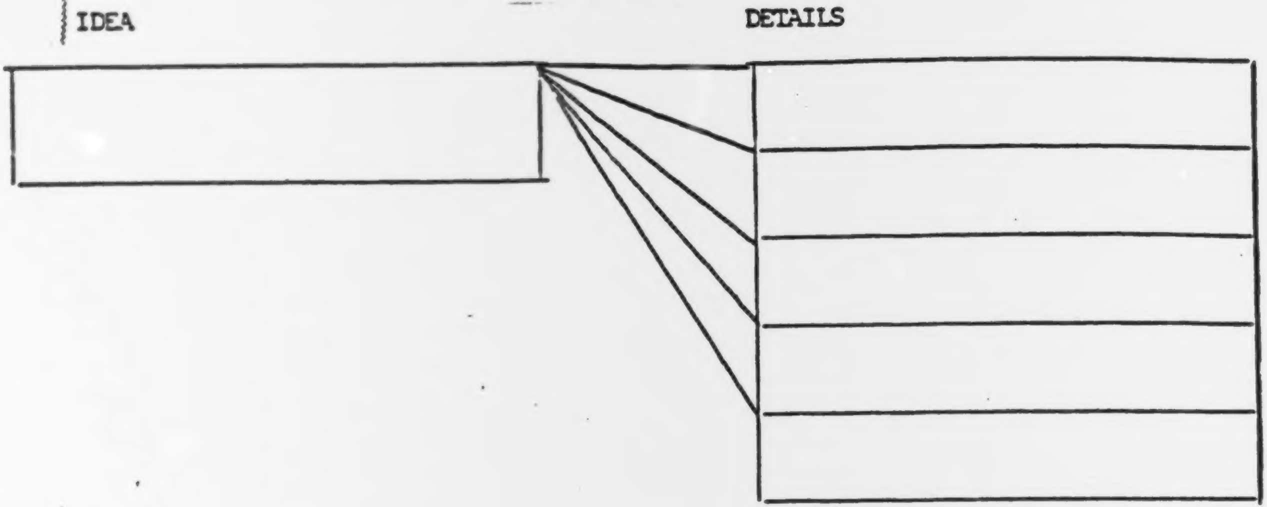
D. The learners are ready to write their final draft.

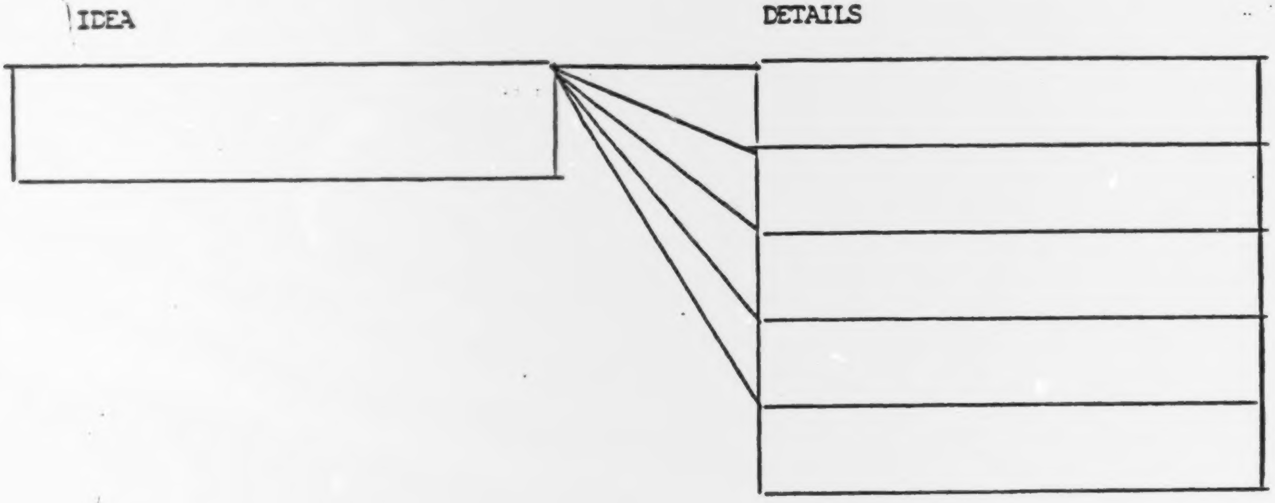
24jb3

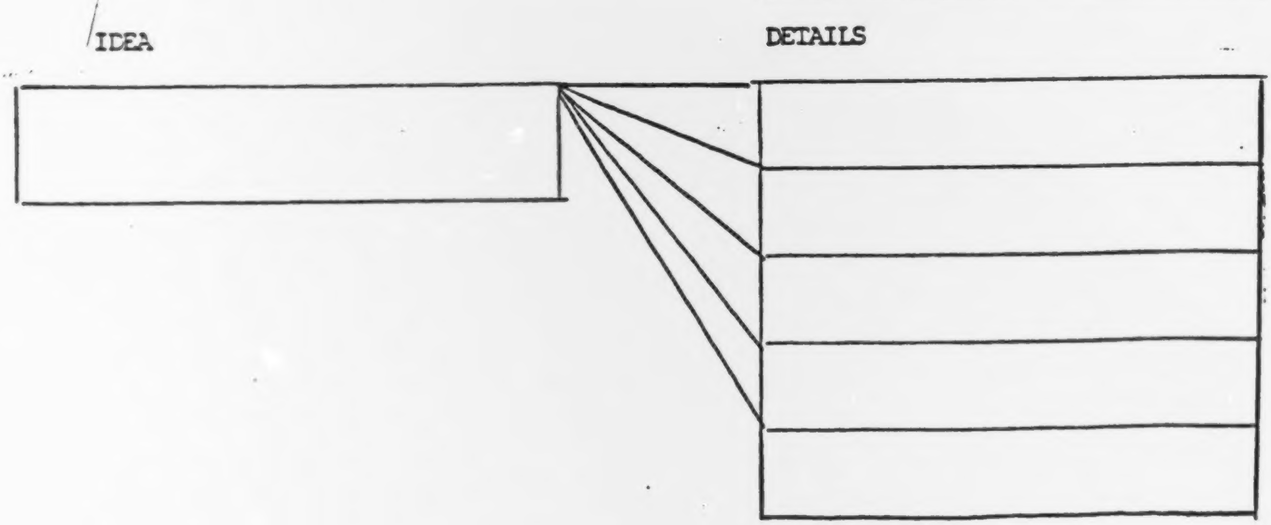
THE WRITING PROCESS


PREWRITING
• to generate topic possibilities
• to generate raw material
DRAFTING
• to elaborate
• to organize raw material
REVISING
RESPONDING
• to provide a real audience
• to suggest revision
REWRITING
• to incorporate response suggestions
• to improve sentence level skills
EDITING
• to meet conventional standards
• to improve communication
WRITING TO LEARN
LEARNING TO WRITE

LIST OF IDEAS


IDEA
DETAILS


IDEA
DETAILS


IDEA
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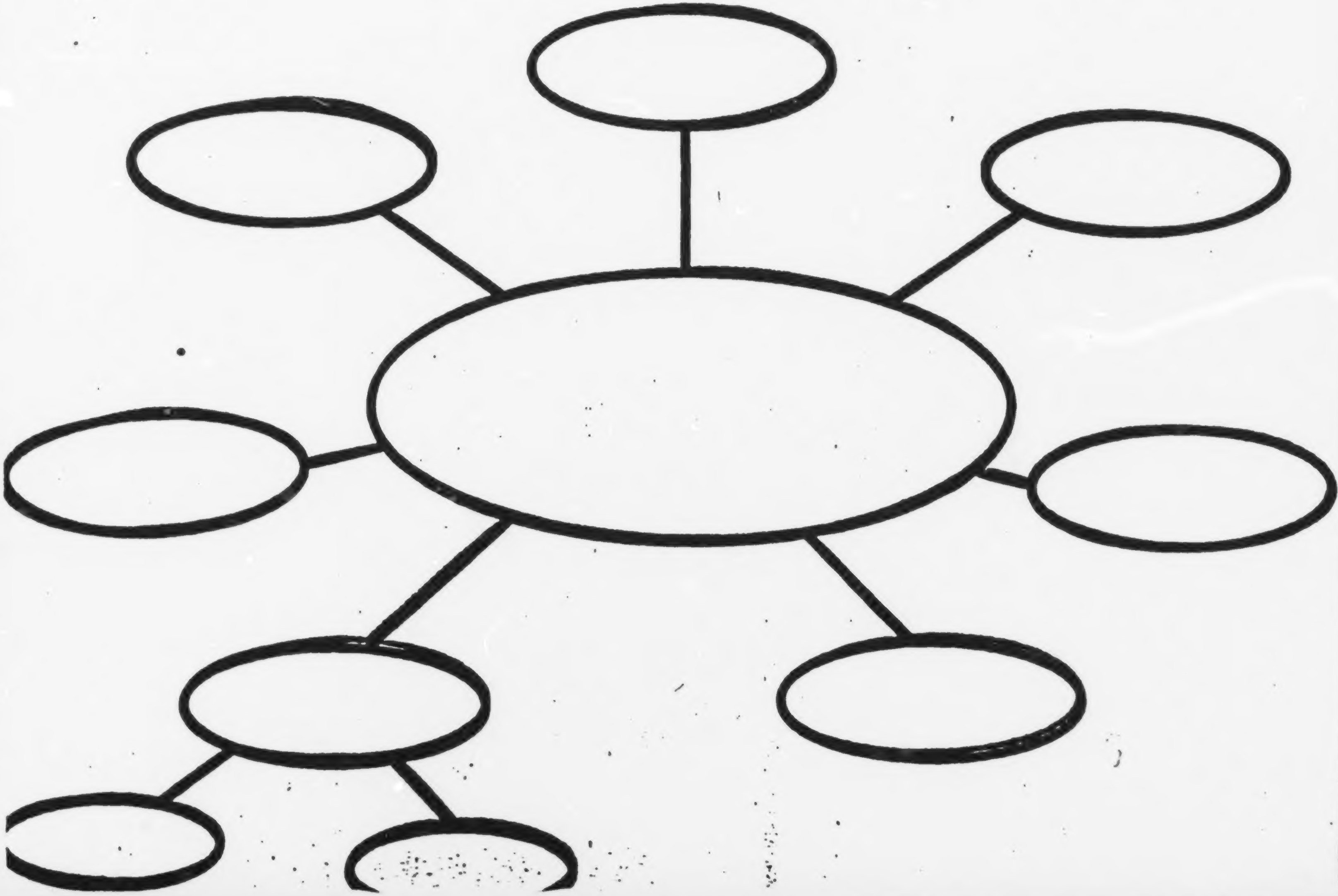
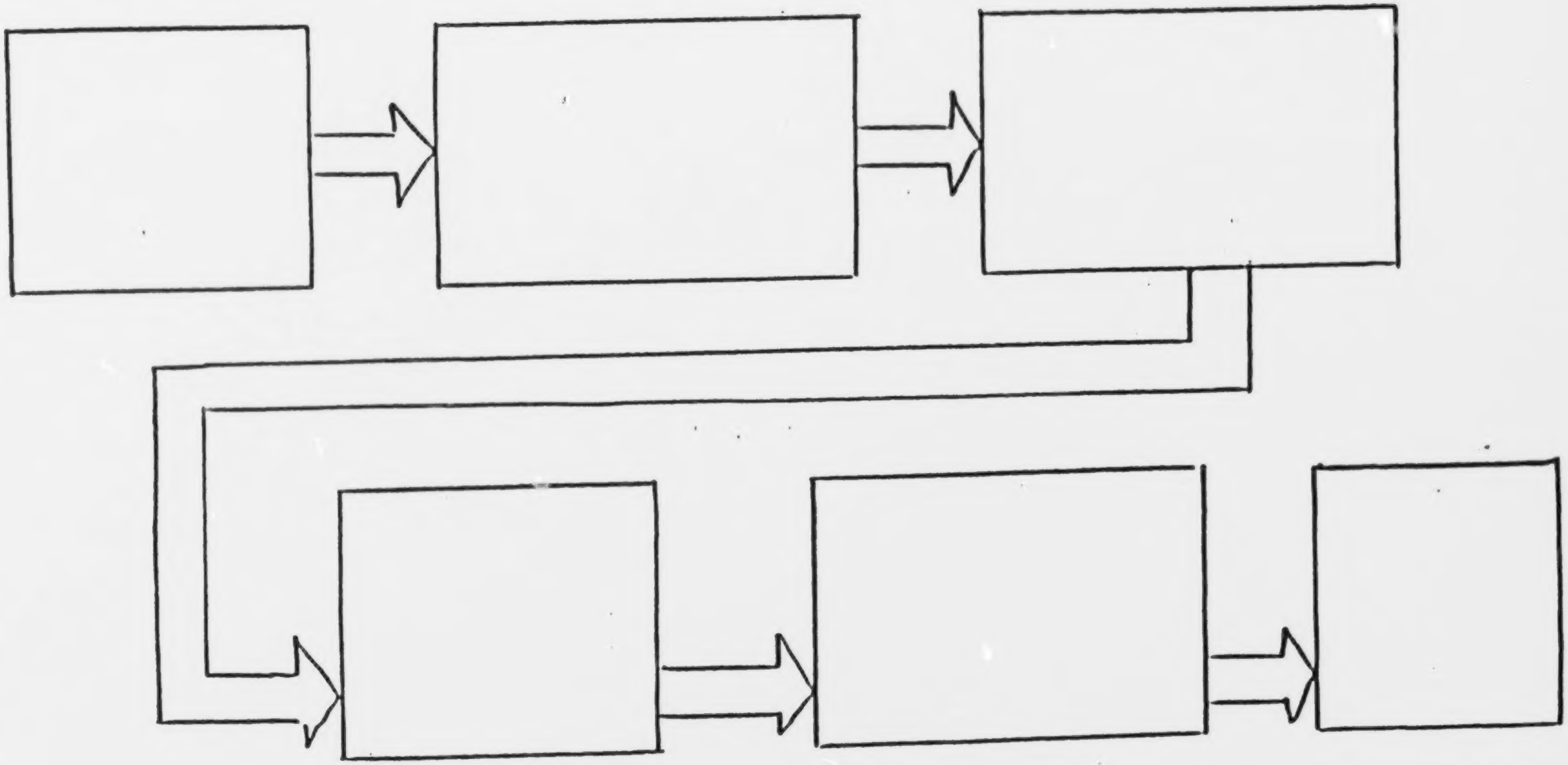
WEB



SEQUENCE_CHAIN



ONE DAY IN THE WORK WORLD OF A REPAIR PERSON

I repair elbows and scoops. These jobs are fabricated in the lay up room. After lay up is completed the elbow is then placed into the autoclave for a twelve hour cure. After cure a teardown person will take the elbow apart and deliver it to the trim department. An experience machine person trims and drills the elbow into shape.

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It is now time to mix the EA956 filler. This mixture has two parts and must be weighed out on the scale. One hundred of part-A to fifty eight part-B is needed. I then fill an air gun with EA956 filler. The gun is plugged into the air line and the nozzle is placed over the drilled holes. The air pressure is then appiled and the solution fills the voided holes. This will allow the ES956 solution to flow more easily to the next hole. The elbow is cured after all the voids have been filled. Heat causes the solution to harden. I can either use a heat lamp or put the job into the oven.

Reshaping is the next and final stage that I do to complete my repairs. I usually hand sand the rough edges off and put a final coat of 91-LD on. The job goes back into the oven, where it will see an eight hour cure. I then stamp the paper work, the job is now ready for inspection. An inspecter closely inspect the job and then places his stamp of approval on the elbow. The elbow is then delivered to the next department.

The assembly department will receive the elbow after inspection. They will attach the elbow and other parts together to continue with the construction of the major assemble unit.

25jb3

HORIZONTAL AND VERTICAL RELATIONSHIPS ON THE JOB

Level: Reading Level 9-12
Population: Adults in the Workplace

Objective: By the end of this lesson, you will be able to

1. define "relationship"
2. complete a horizontal and vertical chart of your department
3. discuss in large and small groups how to handle typical relationship problems that happen at work

Materials: Overhead of chart
YOUR ATTITUDE IS SHOWING BY E.N. CHAPMAN (Macmillan)

Motivation: Show film-clip from the movie **NINE TO FIVE** when Lily Tomlin is angry over having to get her supervisor a cup of coffee. Ask: Why do you think this assistant is so mad?

Lesson:

1. Transition: We all have to work with people we don't like, but we can do this with more grace and less stress by understanding the advantages of good horizontal and vertical relationships.
2. Show overhead of the relationship of a department (p.31 Chapman's book).
3. Give out a blank copy of the relationship chart and have class fill in their own coworker/supervisor names.
4. Before we read about working relationships, let's try to define what a relationship is. Accept answers and write a composite definition on the board.
5. Ask: Which is more important, to have a good relationship with your boss or your coworkers? Accept answers.
6. Before we decide on a correct answer, let's read about horizontal and vertical relationship pp.25-33. Afterward compare class definition to the book's definition. List the advantages of having good relationships.
7. Small group work: Break into groups and discuss Problem 4 on p.33.
8. Each group will present their opinion of the problem
9. As a class: List three methods for improving relationships on the job. Sample answers: making small talk, promptly providing help to others, doing an error free job, don't let yourself gossip or complain...

Summary: A good relationship depends on conflict-free communication. We are all challenged in our homes, families, churches, and at work to show respect for each other by speaking without blame or criticism.

Follow-up Activities:

Journal prompts: If I could change my working relationship with....
I would feel....
Show video: **WORKING WITH DIFFICULT PEOPLE**

Class IV : Reading and Writing Curriculum

Writing and "Reading-To-Do" in a Manufacturing Workplace

Ability: The audience is Class IV, who are generally highly skilled workers who scored 231 or higher on the CASAS test.

Objectives: To be able to write sequential, understandable and executable directions.

To be able to read and execute written directions.

To be able to work as a team.

Strategies:
Experience sharing
Cooperative learning
Writing to Learn
Multi-Sensory Approach
Use of Manipulatives

Research/ Background: Intensive and extensive interviewing of the students concerning their job duties and restrictions.

Manipulatives: (Also listed under "materials" on Job Sheet)
-Conductive epoxy
-Die electric epoxy
-Two red needle attachments
-White plunger
-Substrate
-Waffle card
-Circuit parts
-Tweezers

Procedures: Student A, who is not familiar with hybrids, will be the worker.

Student B, who works in the hybrid area, will be the supervisor.

Student C, who is a Quality Assurance Inspector, will inspect the work when it is completed.

The instructor will be the engineer.

Student A will be given the Job Sheet to read, understand and execute.

As a class, we write the Job Sheet and review its steps.

We do a "dry-run" of the sequence of activties and discuss problems and pitfalls in the execution.

We then execute the work directions on the Job Sheet and hold an inspection by Student C.

Follow-Up Activties: We write a follow-up Journal entry on the value of team-work, and review the pitfall of reading to perform a task.

Job Sheet

Materials

1. Conductive epoxy (gray)
2. Die electric epoxy (blue)
3. Two red needle attachments
4. White plunger
5. Substrate (blue and gold tablet)
6. Black waffle card
7. Circuit parts numbered 7, 8, 9, 10 and 11 (inside waffle card)

Set-up

1. Inspect substrate to make sure it is not scratched or chipped. Slight discoloration is acceptable.

2. Remove protective coverings from tips of epoxy bottles and attach red needle attachments.

3. Insert plunger into bottom of conductive epoxy to aid in its release from the tube.

4. Remove top from waffle card.

Information you should be aware of before beginning operation

1. On the substrate, the gold portion is conductive and the blue portion is nonconductive.

2. Orientation- placing circuit parts on the proper pads and in the correct position.

Operation

1. Place conductive epoxy on conductive pads numbered 7, 8 and 9 (Note- you must be careful to not apply too much epoxy). Restrictions- After placing numbered circuit parts on corresponding numbered conductive pads, the epoxy must be 50% visible around circuit part, without running into other parts or pads.

2. Place die electric epoxy between conductive pads numbered 10 and 11. Please see "note" and "restrictions" listed in 1. and adhere to for applying die electric epoxy.

3. Use tweezer to lift circuit part #7. Note- you will orientate this part on the substrate with the gold parts connecting with the conductive pads.

4. Use tweezers to lift circuit part #8. Note- the dull gray side will make contact with the substrate.

5. Use tweezers to lift circuit part #9. Note- the dull gray side will make contact with the substrate.

6. Use tweezers to remove circuit part #10 (tamulen). Note- the double gold side will touch the conductive pads.

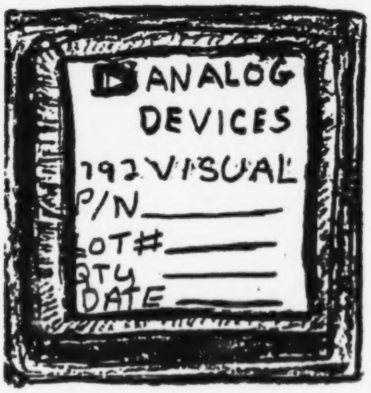
7. Use tweezers to remove circuit part #11. Note- the double gold side will touch the conductive pads.

Inspection

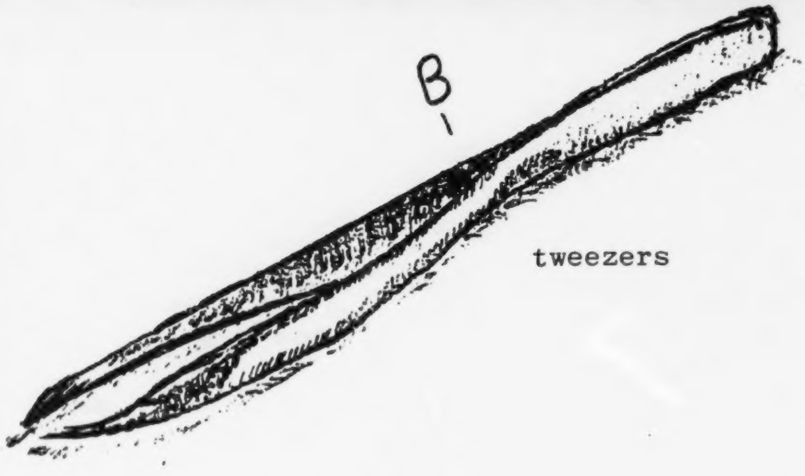
1. Make sure conductive and die electric epoxies are not making contact with any other pad than where you applied them. This can cause the substrate to short circuit.

2. Make sure none of the circuit parts have been damaged.

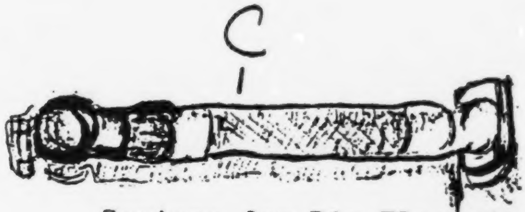
3. Make sure all circuit parts have been orientated correctly.


ANALOG
DEVICES
792 VISUAL
P/N
LOT#
QTY
DATE

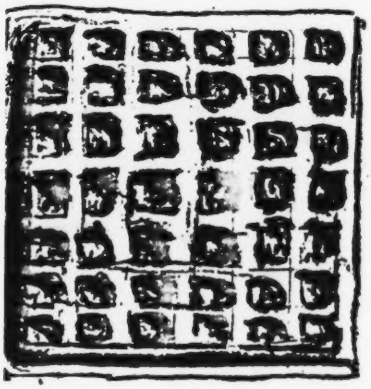
top for waffle card



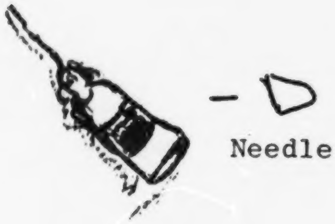
tweezers



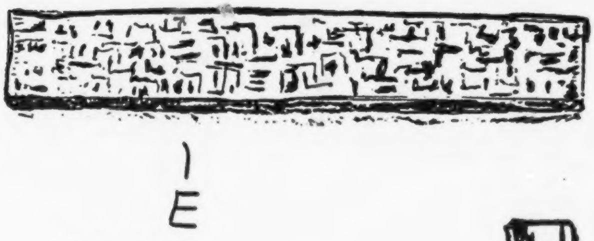
Syringe for Die Electric and
Conductive Epoxy



le card



Needle Attachment



Substrate

PARTS

A - Top for Waffle Card

A - Waffle Card (with numbered boxes for circuit parts)

B - Tweezers

C - Syringe for Die Electric and Conductive Epoxy

D - Needle Attachment

E - Substrate

THE JOB BOOK

Purpose: In order to find out about you and where you work, ECC would like for you to write about your work environment. You will benefit by taking time to think about how you spend about a third of your life, and your instructor will benefit by finding out about what you do.

Directions: Consider the following topics that affect your work, and check whether or not the subject plays a critical factor in performing your job.

1. Job Description: Important__________ Not Important__________

2. Health and Safety Standards: Important________ Not Important________

3. Attendance or Lateness Policy: Important_________Not Important________

4. Chain of Command: Important __________ Not Important__________

5. Layout of Workplace: Important___________Not Important__________

6. Problem Solving Skills : Important ______________Not Important _____

7. A Narrative Description of a Typical Day: Important_____Not Important____

8. Communication Skills: Important_______ Not Important________

Please list any other aspect or topic that affects your work world:

____

____

Feedback, Comments, Advice to the Teacher:

____

____

____

____

____

Part III Attendance Policy

A. If I am late to work, the policy is ______________________________

____

____

____

____

____

B. If I need to be absent from work, I should________________________

____

____

____

____

C. Approved absences include:_____________________________________

____

____

____

____

D. Extended absences must be handled in the following way:_______

____

____

____

____

CHAIN OF COMMAND ON THE JOB

Level One: ____

Level Two: ____

Level Three: ____________________________________

Level Four: ______________________________________

Directions: In a few sentences, describe the process you would follow to resolve an issue or problem on the job.

____

____

____

____

____

____

WORKPLACE SKILLS ENHANCEMENT

Problems, Problems, Problems
Solutions, Solutions, Solutions

Directions: List and give a little detail about some of the common or uncommon problems you face at work. Consider equipment, tasks, people, and policies as areas where problems may arise.

1. ____

   ____

   ____

2. ____

   ____

   ____

3. ____

   ____

   ____

4. ____

   ____

   ____

5. ____

   ____

   ____

Health and Safety Standards on the Job
Position:

HEALTH/SAFETY HAZARD	DESCRIPTION OF THE HAZARD	HEALTH/SAFETY STANDARD

NDEX/CHECKLIST OF THE JOB BOOK FOR [redacted]

art I: Job Knowledge

Copy of Your Job Description

ırt II: Health and Safety

Chart of the Health and Safety Hazards and Standards that Are Applied to Your Job

rt III: Company Attendance Policy

Rules that Affect the Absence of an Employee

rt IV: Chain of Command

Who Reports to Whom in the Proper Order/Hierarchy

:t V: Knowledge of Environment

Layout of Workplace

t VI: Analysis of One Day on the Job

Narrative: One Day in the Work World of a Repair Person.

t VII: Problem Solving

Three Typical Problems and The Solution or Resolution

JOB DESCRIPTION

FOR THE

FABRICATOR/ COMPOSITE
BONDER

WOULD BE PLACED

HERE

5-11-11

A Typical Job Task

Select a simple, typical job task which **you** do regularly in your job. Describe the task by providing the information asked for below. Provide as much detail as possible. Your task may involve all or only some of the sub-tasks asked about here.

Task Name: Tapping

Task Description: (Describe the task in general, stating its purpose and desired outcome.)
The purpose of tapping is to find voids (uncured areas) in the part. A tap hammer is used against the surface (inside and outside) The ear plays an important role in sounding out the voids. You then listen for dull flat sounds that indicate an unbonded area.

List of print materials: (List the printed resources you use to help you complete this task -- e.g., forms, reference manuals, books, notes, etc.)
Tap hammer, mars tag - paperwork,
a good ear

List of writing sub-tasks: (steps) (If applicable, list the writing tasks you do in order to complete this task-- e.g., summaries to write, forms to fill in, memos or notes, etc.)
NONE

ist of math sub-tasks: (If applicable, list any math required to complete this ask.)
NONE

n a scale of 1 to10, how important is competent performance of this task :

- **being hired for the position** 5
- **overall operations** 5
- **promotability** 5

Performance Plus Learning Consultants, Inc.

MARS TAG FOR A

SCOOP REPAIR WOULD BE

PLACED

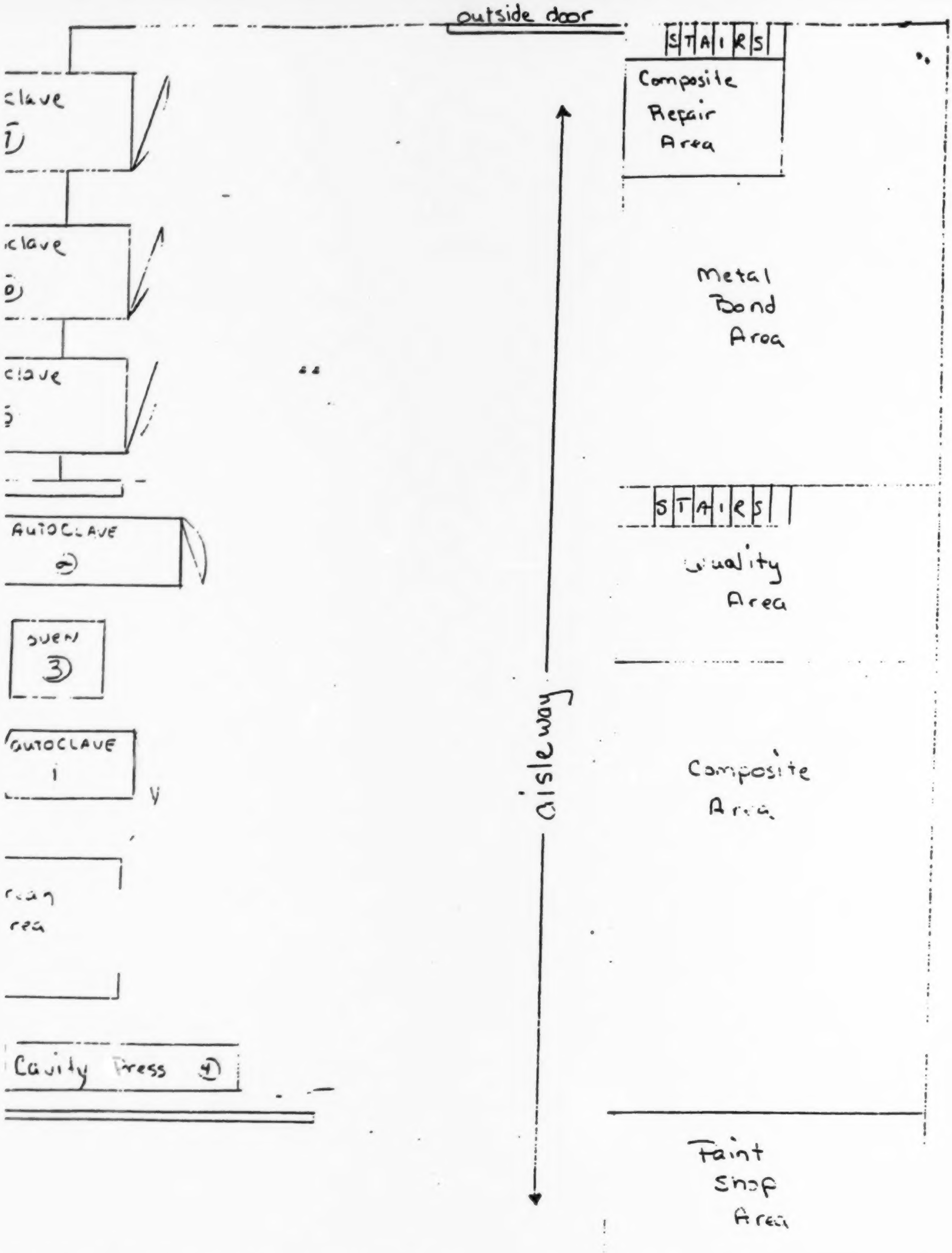
HERE

CHAIN OF COMMAND ON THE JOB

LEVEL ONE:	SUPERVISOR
LEVEL TWO:	MANAGER
LEVEL THREE:	DIRECTOR

DIRECTIONS: IN A FEW SENTENCES, DESCRIBE THE PROCESS YOU WOULD FOLLOW TO RESOLVE A PROBLEM ON THE JOB:

"I WOULD FIRST TALK IT OVER WITH MY SUPERVISOR. I WOULD JUT GIVE HIM THE FACTS. IT IS BEST TO TO SETTLE ANY DIFFICULTIES WITH YOUR IMMEDIATE SUPERVISOR. I MIGHT ALSO INFORM THE SHOP STEWARD FROM THE UNION IF I THOUGHT IT WAS NECESSARY."


outside door
STAIRS
Composite Repair Area
clave 1
clave 2
clave 3
AUTOCLAVE 2
OVEN 3
AUTOCLAVE 1
rean
rea
Cavity Press 4
Metal Bond Area
STAIRS
Quality Area
aisle way
Composite Area
Paint Shop Area

omposite & Bonding Floor Plan

BEST COPY AVAILABLE

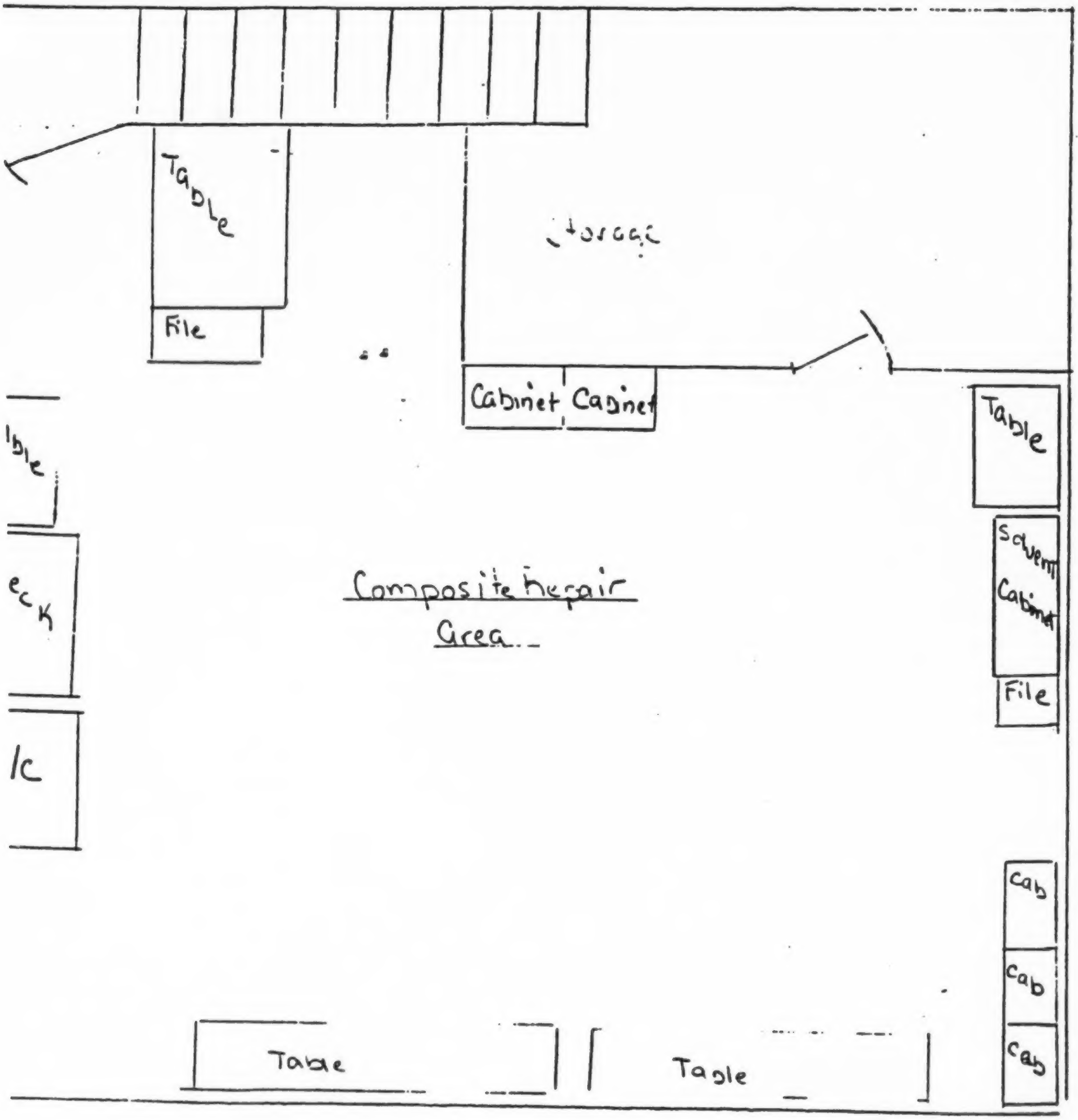


Table
Storage
File
Cabinet
Cabinet
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ble
Solvent Cabinet
eck
File
Composite Repair Area
lc
Cab
Cab
Cab
Table
Table

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PROBLEM SOLVING ON THE JOB

DEFINE PROBLEM	GATHER INFO BY	METHODS FOR SOLUTION
voids and wrinkles	inspection of the part	monitor the lay up and bagging procedure
material shelf life	CORE audit	Keep a record of material shelf life and check it weekly
No work	asked if any jobs are available, Checked to see if others have work that I could help them with.	created a job for myself by helping out others.
No supplies	empty supply cabinet, needed supplies to perform my job (micro)	take a bi-weekly inventory of all supplies
Jobs waiting to be moved by PC (production control)	Jobs missing out of sequential order	have your supervior notify PC of missing job, so they can check the other areas.